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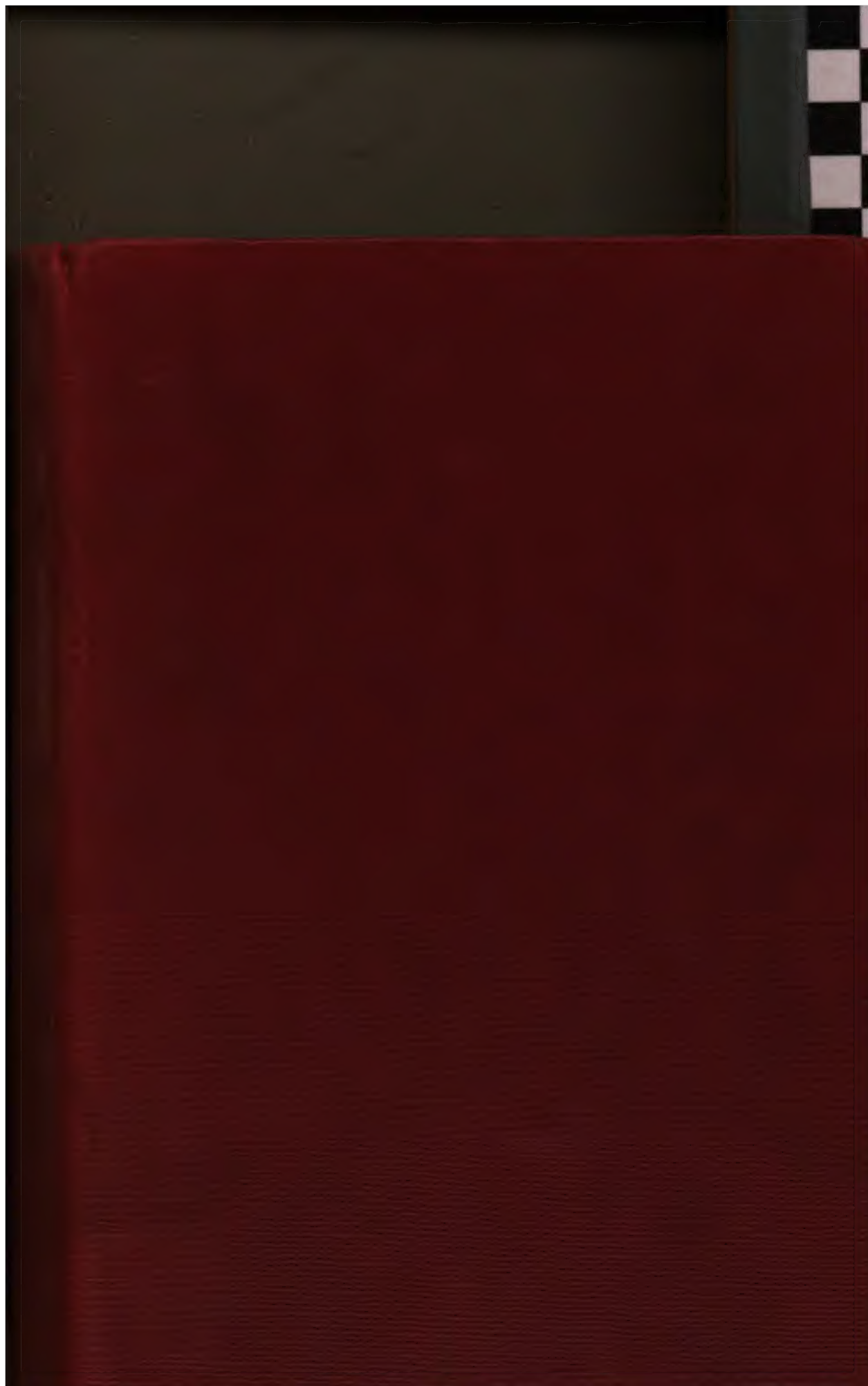
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HEARINGS
BEFORE THE
COMMITTEE ON NAVAL AFFAIRS
OF THE
HOUSE OF REPRESENTATIVES
ON
ESTIMATES SUBMITTED BY THE SECRETARY OF THE NAVY
1908-1909

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[No. 1.]

COMMITTEE ON NAVAL AFFAIRS.

Tuesday, January 7, 1908.

The committee this day met, Hon. George E. Foss in the chair.

BUREAU OF NAVIGATION.

STATEMENT OF COMMANDER CAMERON McR. WINSLOW, ASSISTANT TO BUREAU, ACCOMPANIED BY MR. EDWARD W. CALLAHAN, CHIEF CLERK.

The CHAIRMAN. The first item is on page 2 of the bill, "Pay of the Navy. Pay and allowances prescribed by law of officers on sea duty and other duty; officers on waiting orders; officers on the retired list; clerks to commandants of yards and stations, including first clerk to commandant, navy-yard, New York, at \$1,800 per annum, and one clerk to commandant, naval station, Tutuila, Samoa, at \$1,800 per annum; clerks to paymasters at yards and stations, general storekeepers, receiving ships, and other vessels," etc.

Captain, I desire to ask you as to this new language, "including first clerk to commandant, navy-yard, New York, at \$1,800 per annum;" have you that clerk at the present time?

Commander WINSLOW. Yes, sir; we have the clerk and this would only be an increase in salary from \$1,500 to \$1,800.

The CHAIRMAN. Out of what funds has he been paid heretofore?

Commander WINSLOW. Out of the same fund. He is not paid out of a fund under the civil establishment; he is paid out of appropriation "Pay of the Navy."

The CHAIRMAN. Under what title did he come—the general title, "Clerks to commandants?"

Commander WINSLOW. Yes, sir; "clerks to commandants" are paid out of "Pay of the Navy," and also clerks to general storekeepers and civil clerks of that kind. I do not know why they should be.

Mr. BUTLER. It seems to me that they are attached to the civil end of the establishment?

Commander WINSLOW. This man is the clerk to the commandant, the military head.

Mr. BUTLER. I understand, but the clerk is not a military man?

Commander WINSLOW. No, sir; I think it would probably be better if they were all paid out of a civil fund.

The CHAIRMAN. This would be an increase of \$300 per annum?

Commander WINSLOW. Yes, sir; this clerk is a very busy man. There is very large business in all these yards.

The CHAIRMAN. As to the item, "one clerk to commandant, Naval Station, Tutuila, Samoa," have you that clerk at the present time?

Commander WINSLOW. Yes, sir; he is a \$1,500 clerk.

The CHAIRMAN. That means an increase of \$300.

Commander WINSLOW. Yes, sir.

The CHAIRMAN. What is the necessity of the increase?

Commander WINSLOW. He has to live in an out of the way part of the world and we have to give him very good inducements to go there. There is enough work for a clerk to do at that station.

Mr. BUTLER. His duties would not be as onerous as the duties of the clerk at the New York yard?

Commander WINSLOW. No, sir.

Mr. BUTLER. The difference would be made up by the distance from home?

Commander WINSLOW. Yes, sir; he is at Tutuila, not a very good place to live.

Mr. BUTLER. Have you experienced difficulty in getting men to go there?

Commander WINSLOW. Yes, sir; the place was vacant for several months. While a man may be glad to go there, we have experienced difficulty in inducing him to stay.

The CHAIRMAN. The next item is, "Two clerks to general inspectors of pay corps and clerk to pay officer in charge of the deserters' rolls." Have you those clerks at the present time?

Commander WINSLOW. We have one clerk.

The CHAIRMAN. You want an additional one?

Commander WINSLOW. We want two additional clerks. There is now a clerk to the inspector of the Pay Corps. The two clerks asked for are on the same status as the others. They are not part of the military establishment. I do not know why they should not come under the other list. We have had one before. We have two pay inspectors now who inspect the accounts of ships in commission. They want one more clerk. The deserters' rolls are rolls to which the accounts of a man who deserts are transferred. His accounts are sent in to the Navy Department and are held there for some time before being closed, because the man may show up again and develop not to be a deserter, but a straggler. We have a paymaster in charge of those rolls and he wants a clerk. Formerly a clerk in the Bureau of Supplies and Accounts was engaged upon this work. I think the Paymaster-General is going to speak about that item.

The CHAIRMAN. I notice that some of the language in this paragraph has been stricken out, "and the proper accounting officers of the Treasury are hereby authorized and directed to allow, in the settlement of accounts of disbursing officers, all payments made since November 13, 1905, and prior to July 1, 1907, for commutation of quarters for officers on shore serving with troops and not provided with public quarters." That has become law and is not now necessary?

Commander WINSLOW. Yes, sir; that is right.

The CHAIRMAN. On page 4 of the bill you are asking for 39,000 men instead of 36,000, the number allowed last year. Will you kindly explain to us the necessity for that increase of 3,000 men?

Commander WINSLOW. We not only want 3,000 men, but we want those 3,000 men made immediately available; otherwise we shall not be able to put the new ships in commission. The *California*, now partially manned; the *Mississippi*, the *Idaho*, the *New Hampshire*, the *South Dakota*, the *North Carolina*, the *Montana*, the *Chester*, the *Birmingham*, and the *Salem* are to be commissioned probably before the end of this coming summer, and in addition to that we will need 1,500 men to commission torpedo boats not in commission now.

Ships commissioned and those about to be commissioned.

Ship.	Complement.	Men assembled.	Number of men still wanted to commission.
Mississippi *.....	614	200	364
Idaho *.....	614	15	599
New Hampshire *.....	760	0	760
California *.....	790	723	67
South Dakota *.....	790	225	465
North Carolina *.....	814	0	814
Montana *.....	814	0	814
Chester *.....	347	10	337
Birmingham *.....	347	0	347
Salem *.....	347	0	347

* To be commissioned soon.

* In commission.

Total number short.....	4,904
Number of men short on board vessels in commission and with the fleet.....	1,200
Number of men required to commission torpedo boats and submarines not in commission.....	1,500
Grand total of men short and required.....	7,604
Number of men allowed by law.....	36,000
Number in service Jan. 6, 1908.....	34,648
Short of complement.....	1,352
Number of apprentice seamen under training allowed.....	2,500
Number in service under training.....	2,500
Number of men available on receiving ships.....	100
Number of men to be enlisted.....	1,352
Total number of men available.....	1,452
Total number of men required.....	7,604
Total number of men available.....	1,452
Total shortage.....	6,152

This does not include men necessary to man ships in reserve, those out of commission, and auxiliaries not in service.

Mr. BUTLER. How many torpedo boats have you in commission now?

Commander WINSLOW. We have six destroyers going around with the fleet to the Pacific, we have another flotilla of torpedo boats in re-

serve on this coast, and two destroyers in commission on the west coast. That is all we have in commission regularly cruising with full crews. We have some in reserve, but we have not up to this time been able to do anything with torpedo boats because we have not had the men and officers.

Mr. BUTLER. Is it desirable to keep these torpedo boats in commission all the time?

Commander WINSLOW. It would be desirable to commission them and keep reserve crews. I think it would be desirable to have divisions or squadrons of boats in reserve so that some could be taken out and maneuvered and drilled for awhile, and then sent back to the reserve and another lot brought out. This is the practice abroad, and results in keeping the vessels in good order and the personnel well drilled.

Mr. BUTLER. How many men are on each boat in reserve?

Commander WINSLOW. It would depend on the size of the boat, probably on the smaller boats not more than 10 men. In addition to that it is necessary to have a "mother" ship in commission. We have not done anything with the torpedo boats up to the present time, little or nothing; we have not been able to.

Mr. BUTLER. What kind of a boat would the "mother" boat be?

Commander WINSLOW. Any kind of a boat that we can get—for instance, a boat that has ceased to be useful as a man of war.

Mr. HOBSON. How many men would be required now to put the ships that you name in commission, not including the torpedo boats?

Commander WINSLOW. Forty-two hundred men.

Mr. ROBERTS. These 3,000 men will not put them into commission?

Commander WINSLOW. Forty-two hundred men in excess of what we have. To put them all in commission it will absorb more men than that.

Mr. BUTLER. Three thousand men in addition to what the law provides will be sufficient?

Commander WINSLOW. No, sir. We will want 6,000 men. We want the 3,000 men immediately. Otherwise we may have to stop recruiting. We have recruited more rapidly in the last year than ever before.

Mr. BUTLER. What is the shortage now?

Commander WINSLOW. About 1,342 men. The number changes from week to week as the recruiting parties send in their reports.

Mr. BUTLER. How rapidly have you recruited in the last month or two?

Commander WINSLOW. In July we recruited 1,627; August, 1,765; September, 1,649; October, 1,751; November, 2,377, and December, 2,350. November was the largest month we have ever had.

Mr. BUTLER. That is the largest month in the history of the Navy?

Commander WINSLOW. Yes, sir. Another thing, I would like to recommend to the committee that the language of the appropriation "Pay of the Navy," which provides for furnishing men to vessels of the Fish Commission, be stricken out. The Navy is not interested in manning Fish Commission vessels, and we can not at all spare the

men for that purpose. It seems inappropriate that any expenses for the personnel of the Fish Commission should be charged to a naval appropriation.

Mr. OLCOTT. How do desertions compare now?

Commander WINSLOW. Desertion is something that will vary from time to time. The percentage of desertions is very small. We have roughly 14,000 men, I should say, in the battle ship fleet out on the open sea and they can not run away if they want to. Then we have a large number of men on the western coast. The battle ship fleet and the cruise is attractive to them, and then I do not know that they can get employment on the west coast as easily as they could a few months ago. The conditions which influence men to desert vary from time to time. Our desertions have been running about 9 per cent.

Mr. MUDD. I do not quite get your meaning. You want 6,000 more men, and I do not understand why you do not ask for more than 39,000. You say you need these men and yet you have not the full complement of 36,000 now?

Commander WINSLOW. We have within 1,300 of them.

Mr. MUDD. How do you explain that?

Commander WINSLOW. I think the Secretary may ask for 3,000 more men. I am asking for these 3,000 now, and suggest that they be made immediately available.

Mr. MUDD. Thirty-nine thousand men will not include all you apprehend you will want?

Commander WINSLOW. Not to man the new ships which are to be delivered in the near future, which we must man to try out before final payment on contract.

The CHAIRMAN. Then you want to insert hereafter 39,000 men, "3,000 of whom shall be immediately available?"

Commander WINSLOW. Yes, sir.

Mr. HOBSON. It should be 42,000?

Commander WINSLOW. Yes, sir.

Mr. BUTLER. Well, the Captain does not ask for them.

Commander WINSLOW. I think the Secretary of the Navy may want to speak about that.

The CHAIRMAN. We will take that matter up when the Secretary appears before the committee.

Mr. HOBSON. The 3,000 the Secretary will ask for should be made immediately available?

Commander WINSLOW. No, sir; the ones we are asking for now.

Mr. HOBSON. There is no reason why they should not be made immediately available?

Commander WINSLOW. No, sir; we can enlist them now and we need them for the large number of ships coming on.

Mr. HOBSON. The question in my mind was whether the Secretary's recommendation will not go through before this appropriation bill.

The CHAIRMAN. No; we will hear the Secretary in connection with the appropriation bill. He usually is the last person to appear before the committee. Whatever recommendations he makes will be considered in connection with this bill.

Commander WINSLOW. I would like to explain the situation to the committee so that they will understand it if the Secretary does make such a recommendation. Suppose we get this number of men and we find that we can put some ships in reserve, then we will not have that many men necessarily in active service. We have some very large ships coming out in the course of a few years and we would have those men to man those ships. Now, ships often go out loaded down with recruits, and the whole outfit is seasick. They have never been at sea. We are sending men out in the battle-ship fleet who a month ago were on farms and who have never seen salt water. That is the condition the Navy is in. It would be, of course, advisable to have men a long time in advance of their going to sea in responsible positions in battle ships if we could get them, in order to train them. On the last ship I commanded I doubt if I had 20 seamen out of 800 men. They were all recruits. They developed into very good men, but it took time to develop them.

Mr. BUTLER. From your experience, how long does it take before a recruit becomes a pretty good seaman?

Commander WINSLOW. We can do a good deal with him——

Mr. BUTLER. I suppose it depends on the recruit?

Commander WINSLOW. Yes, sir. We can make very good men of them in two or three years, but to make them valuable and useful on the battle ships as chief petty officers it takes from six to eight years.

Mr. BUTLER. Do you anticipate using these enlisted men to commission the big ships, the *Delaware* and the *North Dakota*?

Commander WINSLOW. That is thought of. We hope to find ourselves with more men than needed for ships actually in service. Some men would be in the process of preparation, so that when the ships go into commission it will not be so difficult to furnish trained men.

Mr. BUTLER. How many men will you require for each one of these ships?

Commander WINSLOW. The complements have not been made up. There will be about 800 men on each ship; probably less, owing to the battery being different from that of the older battle ships.

Mr. BUTLER. Can you tell us what time you expect to get those ships?

Commander WINSLOW. 1910, I think, the contract calls for delivery.

Mr. GREGG. Which are those?

Mr. BUTLER. The first two big ones.

The CHAIRMAN. Do you provide for a full complement for every ship in the Navy on the theory that they are all going to be in commission at the same time?

Commander WINSLOW. No, sir; but we should make provision for manning our ships in war, because at the present time we have practically no reserve in the country to call on, not even a mercantile reserve. Some of the smaller ships are not in commission at the present time. We have only a few battle ships out of commission.

The CHAIRMAN. Have you skeleton crews for any of the ships?

Commander WINSLOW. Yes, sir. The *Brooklyn* is in reserve and the *Iowa* is in reserve.

Mr. ROBERTS. Where is the *Indiana*?

Commander WINSLOW. She is in reserve.

Mr. BUTLER. The *Texas* has gone out of commission?

Commander WINSLOW. Yes, sir.

Mr. ROBERTS. Where is the *Massachusetts*?

Commander WINSLOW. She is being extensively overhauled.

The CHAIRMAN. I wish you would put in your hearing a statement of the number of men in the Navy at the present time, the number of desertions, the usual table which is inserted by the Chief of the Bureau of Navigation.

Commander WINSLOW. Yes, sir; I will do so.

Statement.

Number of men now in the Navy----- 87, 158

DESECTIONS.

Number of men absenting themselves from ship or station without authority ----- 5, 105

Number of men voluntarily returning to service----- 644

Number of men apprehended----- 500

Total number apprehended or surrendered----- 1, 144

Total number of absentees June 30, 1907----- 3, 961

Number of those apprehended convicted of desertion----- 223

Number of deserters for fiscal year ending June 30, 1907----- 4, 185

Percentage of desertion, based on 46,492, whole number of enlisted men in service during year----- 9

Mr. BATES. The bill reads, "and the number of enlisted men shall be exclusive of those undergoing imprisonment with sentence of dishonorable discharge from the service at expiration of confinement." Can you tell us the number of enlisted men undergoing imprisonment at the present time?

Commander WINSLOW. The following statement will show:

GENERAL COURT-MARTIAL PRISONERS.

The total number of general court-martial prisoners confined in the United States naval prisons and receiving ships for prisoners was on January 1, 1908, 693, confined as follows:

U. S. S. <i>Southery</i> , Portsmouth, N. H.	303
United States naval prison, Boston, Mass.	228
U. S. S. <i>Hancock</i> , navy-yard, New York, N. Y.	1
United States naval prison, Mare Island, Cal.	114
U. S. S. <i>Nipsic</i> , Puget Sound, Wash. (held on board the <i>Philadelphia</i> until <i>Nipsic</i> is ready)	10
United States naval prison, Cavite, P. I. (approximated)	17

Connecticut State prison, Weathersfield, Conn.	673
California State prison, San Quentin, Cal.	14
	6

693

Of this number there are sentenced to dishonorable discharge..... 653
 There are in the service under sentence, but placed on probation, action
 the Department depending on future conduct..... 44
 Of this 44 there are sentenced to dishonorable discharge..... 38

If reports on conduct of these probationers be satisfactory their sentences will be remitted.

Mr. ROBERTS. I would like to ask if you will have enough officers available for the ships which will go into commission this year?

Commander WINSLOW. We are going to require about 124 more line officers afloat this summer than we have now, exclusive of midshipmen. If possible, we will commission more torpedo vessels and submarines, which will require still more officers.

Mr. ROBERTS. How many officers will come into the service from Annapolis?

Commander WINSLOW. We will get about 100 who have completed their two years at sea, but we will lose from the list 40 by retirements, deaths, and operation of the personnel law.

Mr. ROBERTS. Then you will be short of officers?

Commander WINSLOW. We are always short of officers.

Mr. ROBERTS. Is there no way that it can be remedied?

Commander WINSLOW. No, sir; not until the Naval Academy brings them into the service.

Mr. DAWSON. Will you kindly furnish a statement showing the enlistments by States during the past year, so that we can get a better idea of the portions of the country from which the recruits are coming?

Commander WINSLOW. Yes, sir.

Table showing the number of enlistments from each State.

Alabama	50	Missouri	1, 265
Arkansas	76	Nebraska	309
Cavite, P. I.	104	New York	1, 790
Colorado	607	New Hampshire	27
Connecticut	123	North Carolina	9
District of Columbia	187	New Jersey	1
Florida	25	Ohio	796
Georgia	66	Oklahoma	214
Illinois	646	Pennsylvania	1, 370
Indiana	263	Rhode Island	151
Indian Territory	19	South Carolina	48
Iowa	257	Texas	140
Kansas	28	Tennessee	308
Kentucky	141	Vermont	6
Louisiana	127	Virginia	42
Maine	14	West Virginia	23
Maryland	294	Wisconsin	201
Massachusetts	644	Wyoming	7
Michigan	505	Washington	140
Minnesota	416		
Mississippi	22		11, 461

Mr. ROBERTS. What number of officers will be required to man all of our ships and the number which will be short in each grade?

[Statement in reply furnished by Commander Winslow.]

Complements of line officers, not including warrant officers.

Vessels.	Ranks.								Total of ranks.								
	Captains.	Commanders.	Lieutenant-Commanders.	Lieutenants.	Lieutenants (junior grade).	Ensigns.	Midshipmen.	Total.	Rear-Admirals.	Captains.	Commanders.	Lieutenant-Commanders.	Lieutenants.	Lieutenants (junior grade).	Ensigns.	Midshipmen.	Total.
Built and under construction.																	
20 modern battle ships.....	1	a 1	3	8	4	8	10	35	5	20	a 20	60	160	80	160	200	705
9 battle ships under 13,000 tons....	1	a 1	3	6	2	6	10	29	2	9	a 9	27	54	18	54	90	263
9 armored cruisers of over 13,000 tons.....	1	a 1	3	6	2	8	10	31	2	9	a 9	27	54	18	72	90	281
6 cruisers (first-class) of over 8,000 tons (including Texas).....		1	4	4	2	6	8	25	1		6	24	24	12	36	48	151
7 cruisers (second-class) of over 4,000 tons.....		7	4	4	3	5	6	29	2		7	28	28	21	35	42	163
16 cruisers (third-class) of over 2,000 tons.....		1	2	2	2	2		9			16	32	32	32	32		144
3 scout cruisers of about 3,700 tons....		1	2	2	2	2		9			3	6	6	6	6		27
21 torpedo boat destroyers.....				1	1	1		3				21	21	21			63
36 torpedo boats.....				1		1		2				36		36			72
12 submarine torpedo boats.....				1		1		2				12		12			24
10 monitors of over 3,000 tons.....	1	1	3	3				8			10	10	30	30			80
Personal staff of fleet squadron and division commanders (about 12).....										2			12	12	2		28
Grand total.....	3	14	22	38	21	40	44	182	12	40	80	214	469	250	466	470	2,001
Line officers on Navy list Jan. 1, 1908.....									20	884	a 125	211	329		202	308	1,279
Afloat.....									8	33	37	110	229	189		308	914
Short in each grade.....										18	38	235			776	162	
Excess in each grade.....									8	31							
The above may be regarded as the fighting fleet, in addition to which there are the following auxiliary vessels:																	
6 receiving ships.....	1		1	2	2			6		6		6	12	12			36
40 gunboats from 100 to 1,710 tons (estimated).....												21	10	50	80	80	241
24 converted yachts of from 82 to 2,000 tons (estimated).....												5	19	24	24		72
14 transports and supply ships of 3,000 to 1,115 tons (estimated)....											14	14	14	14	28		84
Grand total.....									12	46	115	249	564	380	598	470	2,434

* The ordering of commanders as the executives of battle ships and armored cruisers is contemplated. There are also 15 colliers at present manned by merchant crews, and 42 tugs officered for the most part by warrant officers.

The above totals do not include the officers which must of necessity be stationed at the various navy-yards and stations, at the Naval Academy, the Navy Department, recruiting and inspection duty, and otherwise employed on shore.

† Captains for shore duty only, 7.

‡ Commanders for shore duty only, 28.

NOTE.—The English navy has about 4,544 line officers.
The French navy has about 2,400 line officers.
The German navy has about 2,210 line officers.
The Japanese navy has about 2,071 line officers.

Mr. GREGG. I think you said you were always short of officers?

Commander WINSLOW. Yes, sir.

Mr. GREGG. How many officers did you say you would be short when they put into commission the ships mentioned?

Commander WINSLOW. We will require about 124 more line officers, exclusive of midshipmen afloat, this coming summer than we have to-day, not counting those I have mentioned for torpedo vessels and such craft.

Mr. GREGG. How many will be supplied from the Naval Academy?

Commander WINSLOW. About 100. We gain only 60, as we will lose 40 by deaths, retirements, and operation of the personnel law.

Mr. GREGG. That will leave you 60 short?

Commander WINSLOW. Yes, sir; about that.

Mr. GREGG. You said you are always short; has the Department any remedy to suggest?

Commander WINSLOW. Yes, sir. The situation will remedy itself by the increased number graduating at the Naval Academy. A few years ago we practically doubled the dimensions of the Academy. We carry from 900 to 950 midshipmen there. Formerly we only had about 400. We increased the representation.

Mr. GREGG. How long will it be before that supplies the deficiency?

Commander WINSLOW. It is being cut down now. The big classes are coming out now every year.

Mr. GREGG. That is based on the present number of ships?

Commander WINSLOW. Yes, sir; the ones to be commissioned this summer, in order to try them before final payments on contracts. We have six months before the final payment. We have to commission all new ships.

Mr. TALBOTT. The class of 1909 will pretty nearly meet the requirements?

Commander WINSLOW. Yes, I should think it would—our present, not prospective needs. Our shops now are all undermanned.

Mr. ROBERTS. Do I understand that the increase of \$5,000,000 asked for in this appropriation is because of the 3,000 extra men? You ask for 3,000 more men and an increase in the appropriation of substantially \$5,000,000. Is that because of the 3,000 more men asked for?

The CHAIRMAN. Last year we cut down the appropriation from what it should have been on the idea that we would not enlist as many men as were authorized during that time.

Mr. BUTLER. Are you short of money in this appropriation?

Mr. CALLAHAN. No, sir; I have a statement here. On December 31, 1907, the balance was \$805,854, but that will be still further cut down. Under this appropriation the returns for unsettled claims come in for probably two or three years. Probably by next year this balance will be reduced; we can not tell how much, as returns do not come in from the pay officers for several months after the expenditures are made.

The CHAIRMAN. Do you know the balance of this appropriation on the 30th of June, 1907?

Mr. CALLAHAN. Yes, sir—\$3,460,774.

Commander WINSLOW. Last year we could not get up to our full strength. Now we are enlisting rapidly and, of course, the more men we have, the less will be the balance under this appropriation.

Mr. ROBERTS. Let me ask you this question: Suppose the committee in its wisdom should see fit to give you all the men you need, 42,000, how much of an increase over the \$26,000,000 would be required?

In other words how much additional money would it take for the 42,000 men?

The CHAIRMAN. What is the increase for the 3,000 men?

Commander WINSLOW. \$1,200,000; about \$400 a year each.

The CHAIRMAN. This would also provide for an increase in the number of officers?

Mr. CALLAHAN. Yes, sir; the \$5,000,000, a slight increase of officers.

The CHAIRMAN. How many?

Mr. CALLAHAN. An estimated increase of 107.

Commander WINSLOW. In the case of the officers, their pay used to be 15 per cent less when on shore duty. An increase results because that provision of law has been done away with.

Mr. ROBERTS. The proviso is stricken out because it has become law?

Mr. CALLAHAN. Yes, sir; that was in the act last year.

Mr. ROBERTS. And there is no necessity to repeat it?

Mr. CALLAHAN. No, sir.

Mr. PADGETT. You were speaking a moment ago with reference to ships in reserve. What is the present condition of the *Oregon*?

Commander WINSLOW. The *Oregon* is being overhauled and repaired at Bremerton, Wash. She is not in reserve. The *Wisconsin* is also at Bremerton undergoing repairs.

Mr. PADGETT. She will be put into commission when the repairs are completed?

Commander WINSLOW. She will probably be put in commission again in reserve.

Mr. PADGETT. The *Massachusetts* is undergoing repairs?

Commander WINSLOW. Yes, sir.

Mr. PADGETT. At Brooklyn?

Commander WINSLOW. Yes, sir; at the navy-yard there.

Mr. PADGETT. Is she to go into the reserve or into the active list?

Commander WINSLOW. That depends on the fleet requirements, whether we need her or not; if not in active service, she will be put in reserve. That is better than to tie her up to a wharf, in charge of watchmen.

Mr. PADGETT. In placing a ship in reserve, does that mean that she is inferior and not entitled to be in the active list, or is it simply for the purpose of reducing the expenses?

Commander WINSLOW. It might be that she is not in as good shape as the others, not able to steam as well, or it may be that we want to reduce expenses, or it may be that we want to keep her that way simply for preservation. Eventually, we will not need all of our ships in active commission, because it would cost too much money. We will keep a good many of them in reserve, but they will be in reserve in such condition that we can get them out at very short notice. For instance, we have held the *Brooklyn* this year in reserve, ready for service in forty-eight hours. Eventually, we will have to put some of the ships in reserve to save expense.

Mr. PADGETT. If we build many more ships we will not have to put many more in reserve?

Commander WINSLOW. Yes, sir; but we will have to keep a good many in commission in order to keep up the drills and to educate the men and officers, because there is nothing more important than that.

You can do nothing with your ships unless you have a proper personnel.

Mr. ROBERTS. What becomes of the crews of such ships as the *Oregon*, *Massachusetts*, *Indiana*, and others that are being thoroughly overhauled and repaired?

Commander WINSLOW. There is no crew on board. They are sent to other ships.

Mr. ROBERTS. When those ships are through with the repairs and are to be commissioned, you have to furnish crews for them?

Commander WINSLOW. Yes, sir.

Mr. ROBERTS. You can not take the crews off the ships that are already in commission; you have to get new men?

Commander WINSLOW. We could take them off by putting the other ships out of commission. You could not keep the other ships in commission.

Mr. ROBERTS. Then, when these ships go into commission you need men in addition to those you name?

Commander WINSLOW. Yes, sir.

Mr. ROBERTS. Would the 6,000 cover all those ships?

Commander WINSLOW. We will need to man the new ships going into commission prior to July 1, 1908, 4,900 men, and to man the torpedo boats 1,500 men, which would mean a total of 6,400 men. The number short on board vessels in commission and with the fleet is about 1,200, which would make the entire total 7,600.

Mr. ROBERTS. If you have not the information collated, I wish you would furnish us with a statement showing just exactly how many men you would require to man all the available fighting ships you have; that is, how many men it would require to man all the available, all the useful ships?

Commander WINSLOW. The following memoranda which I have had prepared will give you that information in detail:

Memoranda concerning enlisted force, United States Navy.

Number of apprentice seamen under training allowed by law	2,500	
Number in service under training	2,500	
Number of men allowed by law (exclusive of apprentice seamen reported above)	36,000	
Number in service January 6, 1908 (exclusive of those under training referred to above)	34,648	
To be enlisted, to fill complement	1,352	
Number available on receiving ships	100	
Total number available, if complement were filled	1,452	1,452
Number of men short on board vessels in commission	1,200	
Number of men needed for new ships and those to be commissioned prior to July 1, 1909, as per Table I	4,904	
Number of men needed to commission ships now out of commission or in reserve, as per Table II	14,322	
Total number needed	20,426	20,426
Total shortage, based on present complement		18,974
If the ships contracted for and to be commissioned subsequent to June 30, 1909, are to be considered, additional men will be needed, as follows, as per Table III		3,727
Grand total shortage, present and prospective, based on present complement		22,701

Or, in round numbers, the allowed complement should be increased by 22,500 men, or to a total of 58,500, plus 2,500 under training.

If the 18 colliers belonging to the Navy were manned by enlisted men, in case of war, at least 1,000 additional men would be required, making a grand total of 62,000.

TABLE I.—*For new ships commissioned and those to be commissioned prior to July 1, 1909.*

Ship.	Needed.	Ship.	Needed.
Mississippi.....	364	Montana.....	814
Idaho.....	590	Chester.....	337
New Hampshire.....	750	Birmingham.....	347
California.....	67	Salem.....	347
South Dakota.....	465		
North Carolina.....	814	Total.....	4,904

TABLE II.—*For ships out of commission or in reserve.*

Ship.	Needed.	Ship.	Needed.
Indiana.....	454	Minneapolis.....	360
Iowa.....	440	Newark.....	324
Massachusetts.....	551	New Orleans.....	326
Oregon.....	551	Olympia.....	362
Wisconsin.....	598	Raleigh.....	289
Texas.....	374	San Francisco.....	287
Brooklyn.....	398	Detroit.....	236
New York.....	475	Marblehead.....	236
Arkansas.....	165	Six monitors (double turret).....	900
Nevada.....	109	Fourteen gunboats.....	1,900
Florida.....	163	Miscellaneous gunboats under 500 tons,	
Wyoming.....	209	yachts, tugs, auxiliaries, etc.....	1,800
Baltimore.....	324	Torpedo-boat destroyers, torpedo	
Boston.....	251	boats and submarines.....	1,500
Cincinnati.....	299		
Columbia.....	360	Total.....	14,822

TABLE III.—*For ships contracted for and to be commissioned subsequent to June 30, 1909.*

Ship.	Needed.	Ship.	Needed.
Delaware.....	853	Five torpedo-boat destroyers.....	400
Michigan.....	758	Seven submarines.....	105
North Dakota.....	853		
South Carolina.....	758	Total.....	3,727

Mr. HOBSON. And while the Captain is doing that, I would ask that he take into account all the ships in the reserve.

The CHAIRMAN. You mean the State naval militia?

Mr. HOBSON. Yes, sir.

Commander WINSLOW. That is inconsiderable, it amounts to little in comparison with the total requirement.

Mr. HOBSON. And also the number of men that you could draw from the merchant marine service, compared to other nations, if that is not too elaborate.

Commander WINSLOW. Yes, sir.

STATEMENT AS TO NAVAL RESERVE FORCES.

In no other country except England is there an organized naval reserve force similar to the Naval Militia of the United States. The Royal Naval Volunteer Reserve, comprising 195 officers and 3,610

men, is composed of volunteers from civil life—bank clerks, cashiers, journalists, tradesmen, schoolmasters, mechanics, etc. They are formed into divisions (at present there are six divisions), each of not less than five companies of 100 men each and are trained in a manner generally similar to that in which the United States Naval Militia is trained.

The reserve naval forces of the principal naval powers are as follows:

UNITED STATES.

State.	Commissioned and warrant officers.	Petty officers and enlisted men.	Total.
California.....	46	421	467
Connecticut.....	22	206	228
District of Columbia.....	16	217	233
Georgia.....	11	138	149
Illinois.....	45	521	566
Louisiana.....	47	518	565
Maine.....	5	44	49
Maryland.....	16	202	218
Massachusetts.....	33	528	561
Michigan.....	24	256	280
Minnesota.....	12	130	142
Missouri.....	8	106	114
New Jersey.....	30	306	336
New York.....	57	657	724
North Carolina.....	33	345	381
Ohio.....	18	195	213
Pennsylvania.....	8	91	99
Rhode Island.....	18	195	213
South Carolina.....	21	179	200
Total.....	470	5,287	5,757

ENGLAND.

Total reserve personnel.

	Officers.	Men.
Royal naval reserve.....	1,950	25,500
Royal naval reserve, colonial.....		1,400
Royal naval volunteers (efficient).....		3,800
Royal fleet reserve.....		19,500
Pensioners (under 55 years).....		5,846
Coast guard.....	849	8,773
Retired officers (under 55).....	350	
Total.....	2,649	59,919

GERMANY.

Officers 1,707
Men, about..... 131,000

FRANCE.

Officers 878
Men ^a 129,000

^aAll Frenchmen who are mariners must enter their names in the maritime inscription; and they thus become available for recruits for the navy and must serve aboard ship (when called) about four years. The figure above (129,000) includes all "inscrits" of less than 50 years of age.

[January 1, 1903.]

Officers -----	182
Warrant officers -----	121
Men (about) -----	8,734

The CHAIRMAN. The next item is "Pay, miscellaneous?"

Mr. CALLAHAN. That is the Secretary's appropriation.

The CHAIRMAN. Is the Paymaster-General usually heard on that item?

Mr. CALLAHAN. You hear the chief clerk of the Department on that item.

The CHAIRMAN. You do not know anything about the new language at the top of page 7?

Mr. CALLAHAN. No, sir; not "Pay, miscellaneous," or "Contingent."

The CHAIRMAN. The paragraph "Contingent" comes under the Secretary, and we will hear him when he appears before the committee. The next item is "Bureau of Navigation, transportation."

Mr. ROBERTS. What is the reason for this change in the title to this paragraph, striking out "Recruiting and contingent?"

Mr. CALLAHAN. This was done some time ago under Mr. Moody.

Mr. ROBERTS. I think not. According to my understanding that language was in last year's bill.

Mr. CALLAHAN. Yes, sir. The estimates this year were made up separately, "Transportation," "Recruiting," and "Contingent."

Mr. ROBERTS. You have changed the heading. Why was the change made and where?

Mr. CALLAHAN. We made no change. The change was not made by the Department.

The CHAIRMAN. The change was made by the clerk of the committee as showing the difference between this estimate and last year's law.

You are asking an increase of \$150,870 for transportation. What is the necessity for that increase?

Commodore WINSLOW. We asked last year, I think, for \$450,000, and we were allowed \$400,000. We are now going to ask for an urgent deficiency of \$135,000. That would bring it up to \$535,000.

The CHAIRMAN. Where does the increased expense come in, under what particular items?

Commander WINSLOW. We have enlisted more men this year than ever before. We have enlisted a good many men in the interior, and the transportation has been greater. We are transporting more men out to the western coast, and so the transportation account has run up considerably. Another thing, we do not get the benefit of reduced railroad rates now. We were formerly able to make very good contracts with the railroads. Now we do not get any. We pay the same rate as everybody else. Although legally we can make contracts

^a The Japanese naval reserve consists of men who have completed their service in the active list and is also recruited from the merchant fleet, whose rapidly increasing dimensions constitute a strong reserve for the Imperial navy not only of officers, but of seamen, stokers, and artisans.

with the railroads, they have not offered to enter into them. We have a contract at Norfolk with the Chesapeake and Ohio Railroad Company, and we get good rates from them. Our expenses for transportation have gone up considerably.

Mr. ROBERTS. The railroad-rate law is responsible for that?

Commander WINSLOW. Yes, sir; partially.

Mr. PADGETT. How can the Government, under existing law, make a contract and get benefit from that law that an individual can not get?

Commander WINSLOW. The Navy can make contracts. The reduced rate would not be in the nature of a rebate.

Mr. PADGETT. How can they give to the Government a different rate than to an individual?

Commander WINSLOW. I understand there was a ruling made by the Interstate Commerce Commission that for military purposes the Government has the right to make a contract of that kind.

The CHAIRMAN. Was there any exception made in the interstate-commerce law for the Government?

Commander WINSLOW. I think not.

Mr. ROBERTS. I think they attempted to make an exception.

The CHAIRMAN. For "Recruiting" you are asking an increase of \$8,660. What is the necessity for that increase?

Commander WINSLOW. We were going to establish two more stations.

The CHAIRMAN. Whereabouts are you going to establish them?

Commander WINSLOW. Formerly we had 20 stations. We proposed at the time the estimates were made out to establish 2 more stations. That would have represented an expenditure of about \$7,000.

Mr. GREGG. Where are they to be established?

Mr. CALLAHAN. One was to have been in the Southwest and the other in Montana.

The CHAIRMAN. Kindly put in the hearing a list of where the present stations are and where these two will be located.

Commander WINSLOW. I will do so.

Mr. ROBERTS. I would like to ask why it is necessary to have two more recruiting stations when you tell us that the men are coming in faster now than ever before in the history of the Navy.

Commander WINSLOW. I will put that in the hearing; I do not recall it now.

It was the intention when the estimates for recruiting were submitted to establish a new, permanent recruiting station in the State of Montana, in order to recruit from the northwestern section of the country, and one in the State of Texas as a central station for the southwestern territory. Since the preparation of estimates so largely increased a number of recruits has been obtained through existing offices that it is now believed no additional amount of money will be required during the fiscal year 1909 for purposes of new recruiting stations. It is earnestly recommended, however, that no reduction in the present appropriation for recruiting, viz, \$121,340, be made as this amount of money will be necessary to maintain the recruiting service on a satisfactory basis.

(A list of navy recruiting stations is appended.)

List of addresses of navy recruiting stations.

PERMANENT STATIONS, JANUARY 2, 1908.

[Central stations indicated by letter (C) after location.]

Boston, Mass., 66 Hanover street (C).	Milwaukee, Wis., Post-Office building.
Providence, R. I., 23 Weybosset street.	Minneapolis, Minn., Post-Office building (C).
Hartford, Conn., Post-Office building.	St. Paul, Minn., Post-Office building.
New York, 87 South street (C).	Duluth, Minn., Post-Office building.
New York, 126 West street.	St. Louis, Mo., Post-Office building (C).
Newark, N. J., 294 Market street.	Des Moines, Iowa, News-Arcade Building (C).
Philadelphia, Pa., 1413 Filbert street (C).	Cedar Rapids, Iowa, 315 Second avenue.
Pittsburg, Pa., 417 Fourth avenue (C).	Davenport, Iowa, Whitaker Building.
McKeesport, Pa., Room 204, Ruben Building.	Dubuque, Iowa, Post-Office building.
Altoona, Pa., Post-Office building.	Kansas City, Mo., Post-Office building (C).
Wheeling, W. Va., Post-Office building.	Joplin, Mo., Post-Office building.
Baltimore, Md., 15 South Gay street (C).	Chattanooga, Tenn., 916½ Market street (C).
Buffalo, N. Y., Post-Office building (C).	Nashville, Tenn., Post-Office building.
Syracuse, N. Y., Bastable Block.	Birmingham, Ala., Post-Office building.
Rochester, N. Y., 29-35 South avenue.	Atlanta, Ga., Steiner-Emery Building.
U. S. S. Wolverine, Erie, Pa. (C).	Knoxville, Tenn., 317 Wall street.
Cleveland, Ohio, West Sixth and Superior avenue (C).	New Orleans, La. (C).
Detroit, Mich., 33 Lafayette avenue (C).	Omaha, Nebr., Post-Office building (C).
Toledo, Ohio, Chamber of Commerce Building.	Lincoln, Nebr., Post-Office building.
Saginaw, Mich., Post-Office building.	Hastings, Nebr., Post-Office building.
Jackson, Mich., Post-Office building.	Council Bluffs, Iowa, Post-Office building.
Grand Rapids, Mich., Powers Theater Building.	Sioux City, Iowa, Post-Office building.
Cincinnati, Ohio, Post-Office building (C).	Sioux Falls, S. Dak., Post-Office building.
Columbus, Ohio, American Savings Bank Building.	Oklahoma, Okla., 11-13 Robinson street (C).
Louisville, Ky., Post-Office building.	Wichita, Kans., Post-Office building.
Dayton, Ohio, Post-Office building.	Denver, Colo., Room 5, Alamo Building, Seventeenth and Market streets (C).
Indianapolis, Ind., Post-Office building (C).	
Fort Wayne, Ind., Post-Office building.	
Chicago, Ill., 527 New Post-Office building (C).	

TEMPORARY RECRUITING STATIONS, JANUARY AND FEBRUARY, 1908.

[Party No. 3.]

Austin, Tex., Jan. 6 to 11, 1908.	Santa Fe, N. Mex., Feb. 3 to 8.
San Antonio, Tex., Jan. 13 to 18.	El Paso, Tex., Feb. 10 to 15.
El Paso, Tex., Jan. 20 to 25.	San Antonio, Tex., Feb. 17 to 29.
Albuquerque, N. Mex., Jan. 27 to Feb. 1.	

The U. S. S. *Wasp* will cruise in the southern waters of the Atlantic coast on recruiting duty. Ports visited and dates will be furnished on application to Bureau of Navigation, Navy Department, Washington, D. C.

Mr. ROBERTS. Can you tell me from your memory what expenses you charge up under this item for recruiting stations?

Commander WINSLOW. Advertising is the heaviest item; in addition, there are rent of rendezvous and office expenses, printing, post-

ing, subsistence of accepted applicants, expense of officers connected with traveling recruiting parties.

Mr. ROBERTS. Do you charge anything up for the pay of the officers or the men?

Commander WINSLOW. No, sir.

Mr. ROBERTS. You have retired officers. Do you charge up the difference between their retired and active pay?

Commander WINSLOW. No, sir.

Mr. ROBERTS. That comes out of "Pay of the Navy?"

Commander WINSLOW. Yes, sir.

The CHAIRMAN. I notice that the proviso, "*Provided*, That no part of this appropriation shall be expended in recruiting seamen, ordinary seamen, or apprentice seamen, unless a certificate of birth or written evidence other than his own statement or statement of another based thereon satisfactory to the recruiting officer, showing the applicant to be of age required by naval regulations, shall be presented with the application for enlistment," is stricken out.

Commander WINSLOW. The opinion of the Department with reference to the proviso which was placed in the bill by the House is that it makes it very difficult for us to enlist men. You will find almost no men who can produce certificates of birth, and we have to rely largely on the surgeon's examination. He has got to be very positive of a man's age in order to corroborate the evidence that the man may bring. It is very difficult for us to get any evidence at all.

The CHAIRMAN. Does the Army have any provision of this kind?

Commander WINSLOW. I do not think they have.

Mr. PADGETT. My recollection is that on the floor of the House in the discussion of the last bill it was brought out that there was, perhaps, in New York some man who was engaged in the business of furnishing certificates to boys in order to comply with this regulation. Is there not something of that kind—some men there who, when the boys go there to enlist, go to them and send them to some doctor or to some man who will certify to their ages?

Commander WINSLOW. Yes, sir. There has been something of that kind at different times. They are called professional guardians. Some of the men who do that work do it honestly. Of course there have been others who have been unscrupulous, but we get hold of them very easily. That is not very much trouble. It would only take one or two cases to bring a man under suspicion.

Mr. ROBERTS. You are enlisting and have been since the first of last July under this provision?

Commander WINSLOW. Yes, sir.

Mr. ROBERTS. And you have had more enlistments?

Commander WINSLOW. We have had many more applications.

Mr. ROBERTS. So this provision does not seem to stand in the way of getting more men when the business conditions are right?

Commander WINSLOW. We would get more men if it were not for that provision.

Mr. ROBERTS. You are now almost filled up?

Commander WINSLOW. Yes, sir; but this has been due, I think, to the business conditions. Let business start up again——

Mr. ROBERTS. This is the only time in ten years when the business conditions have been affected?

Commander WINSLOW. Probably this cruise of the fleet has caused men to come into the Navy.

Mr. ROBERTS. Do you think this provision is a serious hindrance to getting desirable men?

Commander WINSLOW. We wanted some men on the Pacific coast and nobody could recruit them under that provision. They could not get around it at all. At the recruiting stations they are more expert in examining men and in dealing with the situation and they get evidence that we can not get on cruising ships.

Mr. ROBERTS. All that is necessary is either a birth certificate, or a written statement, a statement from the boy's mother, or close relative, or any disinterested person as to his age; that covers the case?

Commander WINSLOW. If that statement has any value you must know, as a matter of fact, the person who makes it. If he brings a written statement you must know the writer of the statement; otherwise, it is of no value whatever.

Mr. ROBERTS. That is true. If you take that, you comply with the law?

Commander WINSLOW. I do not know.

Mr. ROBERTS. Suppose a boy comes in with a statement signed by his mother. You know at once, assuming that statement was made by his mother, whether the provision has been complied with?

Commander WINSLOW. If you know it has been written by his mother, that his mother wrote it.

The CHAIRMAN. You have to investigate that?

Commander WINSLOW. Yes, sir. It has to be satisfactory to the recruiting officer. If a boy came in and said, "Here is a letter from my mother," and said, "I was born at such a date," if you knew nothing about the boy that would not be very satisfactory evidence.

Mr. ROBERTS. As a matter of fact, I want to say that since this provision was put into the bill I have heard absolutely no complaint from my section of the country about getting boys in under age by fraudulent enlistment. I do not say they are not coming in under fraudulent enlistment, but it has stopped the complaint that was coming from my section.

Mr. PADGETT. I had some complaint last year from my territory. A mother wanted to get her boy out of the Navy and they were willing to discharge him, but the boy would have been subject to prosecution for fraudulent enlistment. So it was a question of staying in the Navy or being prosecuted.

Commander WINSLOW. I think you will always have fraudulent enlistments. Two or three a week on an average are reported to the Department. You enlist many boys who have had no moral training whatever. They may be good boys, but they have not had the advantage of moral training. They would object to being called liars, but they would not mind lying, simply because they do not know it would be wrong. The law says that the evidence must be satisfactory to the recruiting officer. Now, they take the written evidence, whatever it is the recruit produces, then the doctor examines him very carefully to determine his age. Of course, if the physical examination determines that the boy is of the age he states, then the documentary evidence is of greater value, but there are probably many recruits who come in and say, "I have not any docu-

ments; I have not any certificate of my birth, and I have not any paper to show; I can not get a paper." That boy is sent off and he may be a good man.

Mr. ROBERTS. After all, the Navy does not want to take in boys who are under the lawful age?

Commander WINSLOW. Oh, no.

Mr. ROBERTS. And yet, they have done it?

Commander WINSLOW. Yes, sir. Not, however, knowing such to be the case.

Mr. ROBERTS. I think the general effect of the threat of prosecution for fraudulent enlistment is bad because a parent who wants to get his boy out of the Navy and who writes to the Department and gets a reply that they will not let the boy out, is going to talk right and left on every occasion against the Navy and create an unfavorable impression. While it is question of policy, it would seem to me to be a better policy to let the boys out quietly.

Commander WINSLOW. He would tell another boy and he would do the same thing. We do not want to take boys who are not what they represent themselves to be. I do not think this provision accomplishes what is desired. The recruiting officer is not going to take a boy under age if he knows it. They do not want him. I do not think this proviso is going to help them. I think it is going to turn away a lot of boys.

The CHAIRMAN. In the next item, "contingent," you are asking for an increase of \$5,000. There is some new language in this paragraph "purchase of gymnastic apparatus." Is that the necessity for the increase?

Commander WINSLOW. That is simply apparatus we use wherever we congregate men, at the navy-yards, or where we have a lot of recruits. We want a certain amount of apparatus, as it keeps the men in good shape, interests them, and takes their attention away from going out to beer saloons, and gives them an opportunity to develop physically. That appropriation is distributed over the whole Navy, and it is not very much.

Mr. ROBERTS. You have that apparatus on the ships too?

Commander WINSLOW. We get that under another appropriation.

The CHAIRMAN. This increase of \$5,000 is to purchase that apparatus?

Commander WINSLOW. Yes, sir.

Mr. CALLAHAN. It also includes the telegraphing.

Commander WINSLOW. Yes, sir; and the telegraphing will be heavier this year.

Mr. ROBERTS. Is there any deficiency?

Mr. CALLAHAN. We have a balance under the appropriation for 1907 of about \$92.

The CHAIRMAN. The next item is "Gunnery exercises," and there is an increase of \$20,000. What is the necessity for that?

Commander WINSLOW. To establish new targets and ranges on the Pacific coast on account of the fleet being out there. It is to cover the expenses of buying the targets. We have more ships competing this year than ever before.

Mr. ROBERTS. Are the targets more expensive out there?

Commander WINSLOW. We have bigger targets, targets running 60 feet in length.

Mr. ROBERTS. The target practice will be in Magdalena Bay?

Commander WINSLOW. Yes, sir. We had one target range there formerly. Now we will have four ranges laid out there.

Mr. ROBERTS. It is going to be more expensive to get the targets down there than on the Atlantic coast?

Commander WINSLOW. We will send them down in one of the naval ships.

Mr. ROBERTS. You will not set them up and tow them down?

Commander WINSLOW. No, sir; it is too far down there. It is a thousand miles from San Francisco.

The CHAIRMAN. The next item is "Outfits on first enlistment: Outfits for all enlisted men and apprentice seamen of the Navy on first enlistment, at not to exceed \$60 each, \$900,000: *Provided*, That hereafter the Secretary of the Navy may, in his discretion, require the whole or a part of the cost of outfits allowed upon enlistment to be refunded in cases where men are discharged during the first six months of enlistment for any cause other than disability incurred in the line of duty: *Provided*, That hereafter such refunds shall revert to the current appropriation for outfits on first enlistment." Now, first, what is the necessity for the increase in this appropriation of \$300,000.

Commander WINSLOW. We have enlisted more men; the enlisted number will run up considerably.

The CHAIRMAN. How did you figure that out in arriving at \$900,000.

Commander WINSLOW. It is about \$60 for every outfit. It has gone up from \$45. The expense of the outfit has been increased.

Mr. ROBERTS. That was done last year.

Commander WINSLOW. Yes, sir.

Mr. ROBERTS. Then the 3,000 additional men would account for \$180,000 of the increase.

The CHAIRMAN. You figure on about 15,000 new enlistments and that gives you the \$900,000?

Commander WINSLOW. Yes, sir; we have a deficiency now of \$300,000.

The CHAIRMAN. Are you asking for it this year?

Commander WINSLOW. Yes, sir. That is caused by getting more men.

The CHAIRMAN. Now, as to this proviso, "*Provided*, That hereafter such refunds shall revert to the current appropriation for outfits on first enlistment?"

Commander WINSLOW. If we enlist a man and give him \$60 for his outfit, and if he stays long enough and is discharged for any cause whatever, the pay due him would make up that \$60. Now, if he stays, for instance, long enough to work off half of the \$60 and is discharged, say he gets \$30 ahead, that \$30 reverts to the Treasury, and we never get it again. What we want is to have the \$30 that is turned into the Treasury placed to our credit. We can get half a man for \$30 and if two men went out, making \$60, we would be able to get one man for that. Now the money goes back to the Treasury and we never get it again.

Mr. BUTLER. This is a change of law?

Commander WINSLOW. The law now requires the money to be turned back into the Treasury. I think the appropriation was really intended for our use.

Mr. BUTLER. And the only change that this proviso will work is the one that you have explained, that is the stopping of the money in the Navy Department, and not directing it into the Treasury.

Commander WINSLOW. Yes; we take it right back into the Navy Department and utilize it in supplying other vacancies.

Mr. BUTLER. That is the only change in the existing law.

Commander WINSLOW. Yes. If the change is not made the Treasury will get the money.

The CHAIRMAN. "Maintenance of naval auxiliaries, \$571,540." There is an increase there of \$71,541, which please explain the necessity for.

Commander WINSLOW. We have increased the wages of all the men on the auxiliaries.

Mr. ROBERTS. What appropriation will the expense of the hospital ship be charged up to?

Commander WINSLOW. It would have to be charged up to this appropriation; it would be an auxiliary. It would have a merchant captain and a merchant crew on board. It would come in under the head of auxiliaries. A large part of the crew, all excepting the hospital attendants, would be enlisted as merchant seamen. But that is not provided for here.

The CHAIRMAN. Please enumerate the number of ships included under the head of naval auxiliaries, and give their names?

Commander WINSLOW. The following table gives the vessels included in the naval auxiliary service and their complement of officers and men:

Ships.	Officers.	Clerk.	Men.
Abarenda.....	9	1	30
Ajax.....	9	1	41
Alexander.....	8	1	30
Arethusa *.....	9	1	32
Brutus.....	9	1	30
Caesar.....	9	1	30
General Alava *.....	7	1	25
Hannibal.....	7	1	25
Iris.....	9	1	33
Justin.....	7	1	25
Lebanon.....	7	1	25
Leonidas.....	7	1	25
Marcellus.....	8	1	30
Nanshan.....	8	1	30
Nero.....	9	1	30
Pompey.....	6	1	25
Saturn.....	8	1	30
Sterling.....	8	1	30

* The Arethusa being at the present time manned by naval officers and crew and the General Alava in service as a yard craft at the Cavite Naval Station, the expenses of maintaining these two vessels are no longer paid under this appropriation.

Mr. ROBERTS. Have we any auxiliaries commanded by civilian captains?

Commander WINSLOW. Only colliers.

Mr. ROBERTS. How many colliers have we under civilian captains?

Commander WINSLOW. All of them; that is, in time of peace. In time of war we would have naval officers on all of them, if such officers were available.

Mr. BUTLER. Does a collier come under the designation of a naval auxiliary?

Commander WINSLOW. Yes; they all come under that.

Mr. ROBERTS. What is the reason for having civilian captains on the colliers?

Commander WINSLOW. We haven't naval officers or men enough to man them.

Mr. ROBERTS. That, I take it, you will have in mind when you make up the list of men needed for all of our vessels.

Commander WINSLOW. Yes. We tried, a few years ago, to put them under naval crews, but we did not have enough people. We put some of them under naval crews, but were obliged to put them under civilian crews again.

The CHAIRMAN. Is it the purpose to put the colliers under naval officers and crews?

Commander WINSLOW. In time of war, yes; if possible.

Mr. ROBERTS. But you would now, if you had the officers and men?

Commander WINSLOW. We do that anyway in time of war, because we would make those men—as we did during the war with Spain—acting naval officers, because we can control them in that way. We can not control the merchant captains as we can naval officers. We have a good many civilians who are graduates of the Naval Academy, and during the Spanish war one of our ships was officered almost entirely by naval graduates who were volunteer officers. It is desirable to have naval officers, because they understand cruising in fleet formation and are familiar with matters in which a merchant seaman has had no training—such as naval tactics, cruising in close formation at night and in fog, without lights, etc. A naval officer who, owing to age, physical disability, or other cause, might not be desirable for a battle ship might very well be preferable to a merchant seaman in an auxiliary, for reasons just indicated.

Mr. BUTLER. How many officers would you have on a collier in time of war?

Commander WINSLOW. We would probably have a captain, and two or three line officers with him, and possibly a line engineer.

Mr. BUTLER. Would you put an officer of the rank of captain on a collier?

Commander WINSLOW. No, sir.

Mr. BUTLER. About what grade?

Commander WINSLOW. Probably the grade of lieutenant-commander.

Mr. BUTLER. That is, one lieutenant-commander and perhaps three other officers and an engineer, making about five officers in all?

Commander WINSLOW. Possibly no engineer, so there might not be more than four, all told.

Mr. BUTLER. Will you please insert the size of the civilian crew?

Commander WINSLOW. The complements have already been given.

The CHAIRMAN. "Naval Training Station, California, \$61,000," or an increase of \$11,000. What is the necessity for the increase?

Commander WINSLOW. We are going to have a great many more men out there, to begin with, on account of the fleet being there. We are sending all of our men from the interior of the country out there, and we now have a thousand or more men at the station, while ordinarily we only have two or three hundred.

Mr. ROBERTS. This appropriation becomes available on the 1st of July of this year. Is it certain that the fleet will be out there from the 1st of July, 1908, to the 1st of July, 1909?

Commander WINSLOW. No; I do not know that it is certain, but we have a good many ships out there already. We have nine big cruisers there now.

Mr. ROBERTS. Then this is a part of the mobilization scheme?

Commander WINSLOW. Yes, sir.

Mr. ROBERTS. If the fleet were not going out there, however, you would not need the increase at that station, would you?

Commander WINSLOW. We would need the increase at that station for the ships out there now.

Mr. ROBERTS. The ships regularly detailed there?

Commander WINSLOW. Yes, sir. Of course we are sending the men that we recruit now out there, because the whole fleet is going to be on that coast in a short time.

Mr. ROBERTS. It occurred to me that there was a possibility of the fleet not being on the coast more than a month or two, and that it might leave the coast before this appropriation would become available.

Commander WINSLOW. The fleet would be there more than a month or two anyway. It is going to Magdalena Bay for target practice for a month or two, I understand, and will probably be there in April. The ships will not reach San Francisco until some time in May.

The CHAIRMAN. "Naval Training Station, Rhode Island." There is an increase of \$9,000 there. What is the necessity for that, Captain?

Commander WINSLOW. We want to take all enlisted men from work about the station, such as handling boilers and machinery, and place them where they will be engaged in work for which they are enlisted, afloat. We do not think these men should be paid as enlisted men while doing this work, and to remove those men will require this extra expense.

The CHAIRMAN. "Naval Training Station, Great Lakes." There is an increase of \$10,000 there. Please explain the necessity.

Commander WINSLOW. I think that is for protection of the water front, but Admiral Ross can answer in regard to that better than I can.

The CHAIRMAN. Very well. "Naval War College, Rhode Island." There is some difference of language there in regard to the two copyists, and also some added language in regard to the care and preservation of the library, including the purchase, binding, and repair of books, and so forth. Please explain why that change is made. Do you need more money for the purchase of books? Last year you had \$400, and now you ask for a thousand dollars.

Mr. ROBERTS. I remember, Mr. Chairman, that the admiral in charge was very insistent on that point of more money for books. He said that they were badly cramped in getting the necessary books of reference for their studies.

Commander WINSLOW. The phraseology there follows the phraseology that is used with regard to the library of the Naval Academy for the year 1908, and I think it better expresses the purpose for which the appropriation is to be applied. The words "repair and

binding " are inserted for the reason that it is believed that the binding of periodicals and books can be as well done by open contract with local binders as by the Public Printer. They can do it more cheaply and quicker and with considerable saving to the Government, aside from that of freight. If the Public Printer does this work, the books have to be sent to and from Washington by freight.

Mr. ROBERTS. Does not he speak there also of the need of more money to buy books?

Commander WINSLOW. The former appropriation, \$400, which has been unchanged for a number of years, has proved to be entirely inadequate to meet the needs of the library, even with the closest kind of restrictions on the character of books purchased, the result being that the library is now far behind the needs of the college. In fact, the \$400 hitherto appropriated annually is hardly sufficient to keep the library up to date in works on international law alone. Most of the books that are bought up there have a small circulation, and of course they are rather high-priced books.

The CHAIRMAN. Please explain the necessity for this new clerk, one clerk of class 2 (in lieu of one clerk of class 1 now paid out of appropriation for "Pay, miscellaneous"). Is this clerk an old employee, and has he been there a long time?

Commander WINSLOW. They want this clerk put on the same basis as clerks to commandants of minor naval stations.

Mr. PADGETT. What does he get now, \$1,200.

Commander WINSLOW. Yes, sir.

Mr. LILLEY. This language goes further than it did last year, however.

Commander WINSLOW. This clerk has charge of all the work of the president's office, which includes correspondence, the making of requisitions, the checking of vouchers, keeping of the accounts under the college appropriations, and a variety of other work. The diversity of the work, together with the confidential character of much of it, makes it more onerous than work of a routine character. It is yearly increasing in amount, and now probably equals that devolving upon clerks to commandants of the minor naval stations who are paid at the rate of \$1,500 per annum, and with whose duties those of the clerks of the president of the War College are comparable, with no disadvantage to the latter. The president of the War College believes that the increase recommended has been earned by satisfactory performance of duty, and that it is equitable, particularly when the expense of living in Newport is considered.

The CHAIRMAN. "Naval Home, Philadelphia, Pa." Under the item of "Miscellaneous" there is a decrease of about \$4,500.

Commander WINSLOW. There are less men there. There are 137 men there this year, whereas last year there were 150, and about 200 the year before that. The men are falling off. Our men do not get the same compensation that a retired soldier gets at a home. If a soldier goes to a home, he retains his pension, while if our men go to a home they lose their pension.

Mr. ROBERTS. Is that the law or a regulation of the home?

Commander WINSLOW. That must be the law; it could not be a regulation of the home.

Mr. ROBERTS. Why should that distinction be made between the naval and military men?

Commander WINSLOW. It ought not to be made, because the home is supported from the interest on the thirteen or fourteen millions of dollars of prize money.

Mr. ROBERTS. When was that enacted into law?

Commander WINSLOW. I think it always has been the law.

The CHAIRMAN. "Supplemental, Naval Home; pay of secretary and employees, and so forth." Is that an increase in the appropriation?

Commander WINSLOW. This is for an increase from \$1,500 to \$1,800. His pay should come out of the support of the home instead of the Navy.

The CHAIRMAN. How about this master mechanic at \$4 per day?

Commander WINSLOW. That is an increase, because we do not have any way of employing him now, the Comptroller having ruled that the law did not permit of such employment.

The CHAIRMAN. It would be well for you to put in the Comptroller's decision at this point.

There is one store laborer at \$480; please explain that.

Commander WINSLOW. The regulations of the Naval Home provide that in consideration of the faithful performance of such duties in and about the home as may be directed by the governor or commanding officer each beneficiary shall receive \$2 per month. This was afterwards increased to \$3, and was paid up to March 1, 1906. Upon the question of the establishment of the rate of writer at the home, at a compensation of \$10 per month, the Comptroller of the Treasury rendered a decision, under date of March 22, 1906, to the effect that as the appropriation for the support of the home provides specifically for 49 employees other personal services than those authorized by the act are prohibited by section 3679 of the Revised Statutes. The text of the decision is as follows:

TREASURY DEPARTMENT, WASHINGTON,
March 22, 1906.

SIR: I have received by your reference of February 8, 1906, a letter dated January 12, 1906, from Rear-Admiral Ludlow, governor of U. S. Naval Home, Philadelphia, addressed to the Chief of the Bureau of Navigation, in part as follows:

"I have the honor to request that the Bureau authorize me to establish the rate of writer at the home at a compensation of \$10 per month, to be paid by the pay officer of the home from appropriation Naval Home, subhead, 'Support of beneficiaries.' The writer to be employed in the governor's office and selected from amongst the beneficiaries who are competent to do the work."

You request my decision as to whether the money available under the appropriation naval home, subhead, "Support of beneficiaries" in the act of March 3, 1905 (33 Stat., 1905), can be used in payment for such service.

The appropriation referred to provides specifically for 49 employees for the home, including 1 superintendent of ground, 1 steward, 1 matron, 1 beneficiaries' attendant, 1 chief cook, 2 assistant cooks, 1 chief laundress, 5 laundresses, 4 scrubbers, 1 head waitress, 8 waitresses, 1 kitchen servant, 14 laborers, 1 stable keeper and driver, 1 master at arms, 2 house corporals, 1 barber, 1 carpenter, 1 painter, and 1 engineer for elevator. The aggregate compensation amounts to \$14,070. Then follows:

"Miscellaneous: Water rent and lighting, two thousand one hundred dollars; * * * support of beneficiaries, fifty thousand seven hundred and twenty-five dollars; total miscellaneous, sixty-two thousand seven hundred and fifty-five dollars; in all for Naval Home, seventy-six thousand eight hundred and twenty-five dollars, which sum shall be paid out of the income from the naval pension fund."

Thus it appears that personal services are appropriated for specifically and "support of beneficiaries" is one of the items under "Miscellaneous."

Section 3679, Revised Statutes, as amended by the act of March 3, 1905 (33 Stat., 1214, 1257), provides as follows:

"* * * Nor shall any Department or officer of the Government accept voluntary service for the Government or *employ personal service in excess of that authorized by law*, except in cases of sudden emergency involving the loss of human life or the destruction of property."

In view of the fact that personal services for the Naval Home are specifically provided for, I am of opinion that this statute prohibits the employment of a writer for the home as requested by the governor, to be paid from the item "support of beneficiaries" in the appropriation for the Naval Home quoted *supra*.

Respectfully,

(Signed)

L. P. MITCHELL,
Acting Comptroller.

THE SECRETARY OF THE NAVY.

The CHAIRMAN. What about these other matters, "to pay beneficiaries for extra duties performed by them at the home from March 1, 1906, to June 30, 1906, in established ratings, \$1,205.66," and then also to pay a number of men smaller amounts?

Mr. CALLAHAN. In the report made to the committee last year there is this language: "The naval appropriation act approved June 29, 1906, authorizes the Secretary of the Navy to employ, on the recommendation of the governor, beneficiaries in the Naval Home, whose compensation shall be fixed by the Secretary and paid from the appropriation for the support of the home."

No compensation has been received by the beneficiaries for services rendered from March 1, 1906, to June 30, 1906, and payment of workmen employed by the governor during the latter part of March has also been withheld in conformity with the Comptroller's decision quoted above. The extra sum asked for is to reimburse these men.

Mr. BUTLER. That comes out of the fund for the support of the Naval Home.

Mr. ROBERTS. If we authorize the Secretary of the Navy to do that, why do we appropriate specifically for their compensation?

Mr. CALLAHAN. This is to pay beneficiaries for extra duties performed by them.

Mr. ROBERTS. These are the men that went out by the change of law, and there was still some money due?

Mr. CALLAHAN. Yes, sir.

The CHAIRMAN. I see some language has been stricken out here. I think it would be better to restore it.

Mr. ROBERTS. My understanding is that we thought that language would take care of these men.

Mr. CALLAHAN. I think the language providing for the reimbursement of beneficiaries went out on a point of order last year.

The CHAIRMAN. If there is no real objection, I think the language should be restored.

Mr. ROBERTS. Can the income from this fund be used for any purpose whatever excepting the maintenance of that Naval Home?

Mr. CALLAHAN. After the expense of maintaining the Home is taken out of this fund, the balance is turned over to the Interior Department and applied to the payment of naval pensions.

Commander WINSLOW. It is used for pensions and the Naval Home.

Mr. ROBERTS. After they pay the expenses of the Naval Home the balance goes to the Interior Department and is applied on pensions, as I understand it.

Commander WINSLOW. Yes, but I do not know whether they apply it to anything else or not. I know it is applied to pensions and to the Naval Home.

Mr. CALLAHAN. In the hearings of last year we say: "The amount of this interest, namely, about \$420,000, is deposited with the Secretary of the Interior toward the payment of naval pensions with the exception of the sum which is necessary for the support of the Home. Any balances remaining from the appropriation for the support of the Home, instead of being turned back into the surplus fund of the Treasury, are credited to the interest on the naval pension fund."

Commander WINSLOW. Is that a quotation from the law?

Mr. CALLAHAN. I could not say positively.

Mr. ROBERTS. I wish you would put in your hearing at this point for just what purpose that income can be and is now used.

STATEMENT REGARDING NAVAL HOME.

In 1865 an act was passed by Congress incorporating a national military and naval asylum for the relief of totally disabled officers and men of the volunteer forces of the United States, especially those who had served in the late civil war. Certain moneys were set aside for the support of this asylum.

The question of giving a pension to those who were eligible to the naval asylum, but who preferred remaining with their families, had for a long time been discussed, and in pursuance with a recommendation of the Secretary of the Navy, Congress in an act approved March 2, 1867, provided for this pension.

In the naval appropriation act of 1870 it was provided that the present and all future appropriations for the support of the naval asylum should be charged to and paid from the income of the naval pension fund which accrues from the total Government receipts from sales of prizes and from suits for depredation of timber belonging to the United States. This fund amounts to \$14,000,000. This has continued to be the case to the present time.

The naval appropriation act of May 11, 1898, contains the following provision:

And whenever any officer, seaman, or marine entitled to a pension is admitted to the Naval Home at Philadelphia, or to a naval hospital, his pension, while he remains there, shall be deducted from his accounts and paid to the Secretary of the Navy for the benefit of the fund from which such home or hospital, respectively, is maintained; and section forty-eight hundred and thirteen of the Revised Statutes of the United States is hereby amended accordingly.

Prior to the passage of this act, however, it appears that beneficiaries surrendered their pension when entering the Naval Home.

In the naval asylum act, approved June 30, 1890, the designation of naval asylum is changed to Naval Home.

The CHAIRMAN. We will now turn to page 119, public works under Bureau of Navigation.

"Naval training station, California, buildings." There is an item here for extension of wharves to which the *Pensacola* is moored, \$12,000. I wish you would explain the necessity of each one of these items, which amount in all to \$29,500.

Commander WINSLOW. In regard to that I will say that the water has shoaled to a great extent in the vicinity of the wharf at which

the *Pensacola* is moored, so that at low tide it is not possible to "round to" over the mooring chains under the stern of the ship so as to come alongside the gangway of the ship with the steam cutters. This is shoaling a great deal every year and it will be absolutely necessary to extend this wharf as asked for or secure the services of a dredger. For this proposed improvement \$12,000 is asked for labor and material. We can not get a boat alongside of a ship at low water.

The CHAIRMAN. How about the pipe line?

Commander WINSLOW. The pipe line for the new dispensary and small hospital combined. This pipe line is to get the water up there to supply the tank, and to purchase a motor for pumping the water up.

The CHAIRMAN. "Repairs to long wharf, \$9,000."

Commander WINSLOW. That is due to the effect of the worms destroying the piles. We had to renew about 80 piles and also make general repairs to the planking and guard rail in order to put it in good order. Of course labor and material are very expensive out there.

The CHAIRMAN. "Increase of electric plant, \$2,500."

Commander WINSLOW. It is proposed to purchase and install a 50-kilowatt generator and all accessories in the new power house, space having been provided for this generator and the foundation erected in the engine room for future enlargement. The necessity for this is on account of the engine for the machine shop being very much worn and in a short time it will require expensive overhauling, and that it will be economy to purchase a new engine. We propose to use this electrical installation to do the work of this engine.

The CHAIRMAN. "Roads, grounds, and planting trees, \$2,000."

Commander WINSLOW. A large part of that is to be used in filling in the road from the Pensacola wharf to the barracks, to continue the projected road around the island.

The CHAIRMAN. "Naval training station, Rhode Island, buildings; improving and grading ground and roads (to continue), \$3,000."

Commander WINSLOW. There is a big increase in the estimate for public works at that station. The roads are in bad condition. These roads are up in the northern part of the island. The road-drainage system is an incomplete state due to the lack of funds. Filling in and grading at various points are required to level up behind new sea walls and to change swampy areas into much-needed drill ground as well as to improve the sanitary conditions.

The CHAIRMAN. "Dredging channel and basin, \$3,000."

Commander WINSLOW. Further dredging is absolutely essential in order that there may be sufficient room to moor and maneuver the pulling boat used in drilling apprentices, and also that the entrance to the station harbor may be widened to allow the ferries, launches, and station tenders to enter with safety in all weather.

Mr. ROBERTS. The channel and basin is on the south side, is it not?

Commander WINSLOW. The southwest side.

The plans for the steam-distributing lines authorized last year turned out so successfully that the benefits of an extension of the system became at once apparent. Steam is used throughout the year at the lower end of the island, and it is now necessary to maintain a separate boiler plant winter and summer, including three

shifts of men daily. In every plant there are certain unavoidable losses due to banking fires, excessive loss by radiation with low fires, care and maintenance of buildings, and so forth, all of which would be saved if the main plant is increased as proposed.

The CHAIRMAN. Have you made any investigations there at all yourself?

Commander WINSLOW. I have not been up there to look at these things myself.

The CHAIRMAN. This covers your bureau?

Commander WINSLOW. Yes. I think it would be a good thing, however, to have the commandant of the station come before your committee.

(An explanation of the remaining items under the estimate for public works at this station follows:)

Increase in heating and lighting plant.—An estimate of \$15,000 is submitted. Additional boiler capacity is necessary on account of the centralization now being undertaken and also that there may be reserve capacity in case of breaking down or overhauling. The majority of the present boilers are so small as to be uneconomical of operation with full load. A new stack is required, since the present equipment will prove insufficient. Economizers should by all means be installed, as thereby about 5 per cent of the annual fuel may be saved, or about \$1,200 per year. By the concentration of power plant the annual saving to the Government will amount to about \$2,450. This, at 4 per cent interest, would warrant an investment of \$61,250, or at 2 per cent of \$122,500. The improvement should undoubtedly be undertaken as a matter of economy, as well as to meet urgent demands.

When enlarged, the plant will be sufficient to supply the War College with steam, eliminating all boiler attendance in that building, and causing a saving of \$500 on the annual cost of coal. Mechanical stokers should be included in the new boilers and applied to the old, so as to reduce the fuel consumption by 5 to 10 per cent more and avoid the present intolerable nuisance from smoke.

Electric distributing and lighting system, to increase.—An estimate of \$8,340 is submitted. The electric distributing system has been sadly neglected. Many of the wires are not insulated and are thus a positive danger. There are not enough wires to maintain the voltage, nor are the wires of sufficient size to operate the motors for the shops at the lower end of the island. Due to the losses from small wires, operating expenses are increased. Additional wire is considered to be one of the most urgent necessities.

Receiving and disinfecting building.—An estimate of \$30,000 is submitted. A receiving and disinfecting buildings is a vital part of a detention-barracks plant. In it the new recruits are first received and detained for a brief period. Their hair is cut; they are given a thorough physical examination by the surgeon for evidence of dangerous disease; they are bathed; their clothing and other articles taken from them, and they are provided with their first uniform. In this building the clothing stores are kept; a dispensary, a complete disinfecting plant, and a dormitory for temporary housing of the men are provided. The temporary wooden structure now in use is not one-third the size required. It is of very insanitary construction, due to its temporary character. The new building should be erected close to the present detention buildings, in order that the plant, in addition to being complete, may also be compact and administered with the least expense.

Additional detention building.—An estimate of \$20,000 is submitted. Only sixteen dormitories exist in the present four buildings. As the period of detention is twenty-one days, the number of dormitories is insufficient to carry out the sanitary regulations which bitter experience has shown to be necessary. The capacity of the four present buildings is not enough to accommodate the number of men in detention without dangerous overcrowding at times. Epidemics of spinal meningitis, diphtheria, and other diseases have occurred at various times in the naval service, being usually nurtured by overcrowded living spaces. Such conditions are greatly to the discredit of the service, and proper steps should be taken in advance to prevent them.

Repairs to barracks B.—An estimate of \$9,800 is submitted. This building was constructed too cheaply and is wearing out at many points. About \$30,000

have already been spent in repairs and improvements. The sum of \$9,800 is necessary to renew floors, stairs, walls, and to make the alterations and improvements that are essential to the further use of the structure.

Walks at detention barracks.—An estimate of \$2,000 is submitted. No walks have been provided in the vicinity of the new detention buildings. The surface of the ground is very muddy in wet weather, and there is no suitable place for the drill formations. It is not possible to keep the buildings nor the occupants clean when the apprentices are forced to walk in the mud and dust. It is impossible for the officers and men to keep shoes and clothing in a reasonably clean condition. The walks are regarded an absolute necessity.

Water-closet buildings for workmen.—An estimate of \$1,500 is submitted. No water-closets exist now for the use of the workmen, for the occupants of several of the buildings, and for others employed out of doors. These are an absolute necessity and should be provided without question.

New Wharf to Reina Mercedes.—An estimate of \$15,000 is submitted. The present wharf to the berth for the station ship is a mere foot passage. It is the only available place for mooring the landing floats for the station ferry and the various launches. It is thus an important way. When large bodies of men move over the wharf it sways unsteadily. It is not of sufficient stability for mooring the floats. It is not of sufficient strength or width to allow passage of teams. It is now necessary to have supplies delivered in specially light wagons; the horses are unhitched at the head of the dock and the wagons pulled by hand over the one-tenth mile of dock. The piles, not being creosoted, are being gradually rotted away and destroyed by the teredo worm.

Bakery and refrigerating plant, with equipment.—An estimate of \$25,000 is submitted. An improvement of the greatest benefit to the enlisted force quartered at this station would result from the establishment of a bake shop and refrigerating plant. Fresh bread, pies, and cakes could then be made of the most wholesome materials, under the direct supervision of the commissary officials. Better food than that supplied by contract would be produced, and at a considerable annual saving. Storage for raw materials is contemplated in the project, so that purchase could be made in large lots at low rates, and so that, in the event of inferior material being offered, it could be rejected without leaving the station empty-handed.

Through the establishment of refrigerating rooms several weeks' supply of beef, pork, mutton, butter, eggs, and other perishable foods could be kept on hand. Purchase could be made in very large lots, undoubtedly at a saving of a considerable percentage of the present purchase price. Furthermore, the station would not be dependent on daily deliveries, which in case of inferior quality, can not be rejected without curtailing the day's supply; and this is not feasible.

It is estimated that the amount saved in cost of provisions will be at least \$10,000. The cost of operating the plant will be very much less. The refrigerating machinery could be operated at the minimum of expense, as it would be located in the central power plant close by.

MR. ROBERTS. What use is there for the *Reina Mercedes* now?

COMMANDER WINSLOW. She is used as a station ship for the training of apprentice seamen.

MR. ROBERTS. I was wondering if she was of sufficient practical use to warrant an expenditure of \$15,000 for quarters. I take it that this language here would give you a new wharf to the *Reina Mercedes*. The wharf to the landings was not in good condition last summer.

COMMANDER WINSLOW. The wharf to the *Reina Mercedes* is not in good condition. I do not think it has ever been used for wagon traffic. I do not know what percentage of men they have aboard the *Reina Mercedes*, but there is a considerable increase in the appropriation for that station, the detention house, and other buildings, and so I think it would be well to have the commandant come here and explain that.

THE CHAIRMAN. Yes; I think it would be well to have him come.

COMMANDER WINSLOW. There is one thing more that I would like to speak about and that is \$25,000 for the maintenance of the naval training station at St. Helena, Norfolk. We need money very much,

because we have a large number of men there, and unless we have the money all work must stop. Last year we received that sum under an appropriation in "Yards and Docks." This year they have left it out. Of course it makes no difference to us where the money comes from, but we hope to get it somewhere. We want the same amount as last year. That is one of our most important stations. If it is appropriated under appropriation for "Yards and Docks," it will be satisfactory.

Adjourned at 1 p. m.

NAVAL TRAINING STATION, NEWPORT, R. I.

STATEMENT OF COMMANDER W. F. FULLAM, COMMANDANT.

The CHAIRMAN. Your first item is for improving the grounds and roads at the training school, and to continue, \$3,000.

Commander FULLAM. That amount is absolutely inadequate to build the roads which are necessary. The members of the committee who visited us will remember the mud that is there. The old original road ran across the grounds, near the detention barracks, but there is no road there now. It is an unsightly mud bog. The apprentices have to go from one barracks to another through the mud. That appropriation ought to be doubled, and instead of \$3,000 it should be made \$6,000. The Secretary cut it down from \$9,000 to \$3,000. If you will give us \$6,000 now we will work that to the best possible advantage. We ought to have \$9,000.

We have a great deal of heavy hauling at the station. We land 10,000 tons of coal at the south end of the island, and it has to be carted three-fourths of a mile. It would cost \$45,000 to build a pier near the power house, but I did not think you would appropriate that much. The pier ought to be where we could land coal and stores conveniently.

The CHAIRMAN. The next item is dredging the channel basin.

Commander FULLAM. For that we asked \$7,500. That was cut down to \$3,000. I said, "All right, let that stand." We have another appropriation that will be available for that.

The CHAIRMAN. The next item is for the extension of the steam-distributing line, \$8,250.

Commander FULLAM. The Secretary and the Bureau of Navigation allowed that, because at the present time we have three or four different heating plants at different places. It is very expensive to run it in that way. We have three sets of workmen and three places where they are using coal. We ask for \$8,250 so we can concentrate the heating plant at one place on account of economy.

The CHAIRMAN. Is that to be used for the purpose of putting in pipes?

Commander FULLAM. Yes, sir; underground pipes, boilers, smoke-stack, etc. It will result in economy.

The CHAIRMAN. The next item is increase in the heating and lighting plant, \$15,000. Where will that be?

Commander FULLAM. That is for heating and lighting, in connection with the new distributing lines.

The CHAIRMAN. That is for distributing the lines?

Commander FULLAM. Yes, sir. We must have a new smokestack and new boilers. The whole thing is now a costly, uneconomical plant. What we want to do is to concentrate and complete it. The station has developed from what it formerly was, 400 to 500 men, until we now have about 3,000. Of course they must have conveniences and everything must be greatly increased or we can not house them. The raw recruits come into this building—wooden receiving building at south end of the island—and it is not the proper place to receive them. It is depressing to them. Their surroundings are such that they are discouraged. They are compelled to wade around in the mud, and they track the mud into the building.

The CHAIRMAN. Where is that to be located?

Commander FULLAM [indicating the power plant]. We have to furnish power and light there for all these places—the hospital, the war college, the ships, all the officers' quarters, and everything—and at present the plant is not sufficient to carry the load. These new barracks have been added also.

The CHAIRMAN. Where will you locate your electric-light plant?

Commander FULLAM. It will be near the power plant. The arrangement is all right. All we need is an increase of plant so as to carry the necessary power.

The CHAIRMAN. How would you do that—put in more dynamos and put up more wires?

Commander FULLAM. Yes; that is the whole point.

The CHAIRMAN. The next item is for a receiving and disinfecting building, \$30,000.

Commander FULLAM. That is allowed by the Secretary and the Bureau of Navigation. When these recruits come there they have to be put into the building, where they are furnished an outfit of clothing; they are bathed and shaved and everything they have is disinfected, after which they are furnished with an outfit. They must have a dormitory and a place to keep their clothing, a place for the surgeon, and conveniences for medical examination.

When recruits first arrive they must be separated from others for about twenty-one days to prevent infectious conditions arising, and in order to do that we need 21 different apartments—1 for each day—to provide for these raw recruits where they can be kept separate. Two years ago we had an epidemic of meningitis, and on that occasion the men had to go out and live in tents, which is very exacting in that climate. It is to receive recruits when they first come in.

The CHAIRMAN. "Additional detention building, \$20,000."

Commander FULLAM. We have only 16 apartments now, and we want 20. We use 1 day in the receiving building, and we need 20 other apartments for the remaining twenty days of detention; that would make 21 in all. There is less danger from infection in the main barracks if this detention scheme is complete. That is the most vital of all of our estimates.

The CHAIRMAN. "Repairs of barracks B. \$9,800."

Commander FULLAM. That was the first of our barracks that was built. The building was badly and cheaply built and needs repairs badly—as a matter of fact the repairs have already been as high as 25 per cent of the original cost in a few years, showing how cheaply

the building was built. Nine thousand dollars is necessary to put that in condition.

The CHAIRMAN. Will that be sufficient?

Commander FULLAM. I think so. The roof must be repaired and certain stairways must be replaced. This will carry it on for quite a length of time.

The CHAIRMAN. "Walks at detention barracks, \$2,000."

Commander FULLAM. We now have no walks. The estimate is made by the civil engineer, and is \$8,000.

The CHAIRMAN. Where will these walks be?

Commander FULLAM. They are all around these buildings where the men form for drills and meals. The men are now compelled to go out into the mud. We want this to be a wide walk, so that four men can walk abreast.

The CHAIRMAN. Will it be of brick?

Commander FULLAM. It is to be made of concrete. The estimate for that was very close. If you want to cut that down, you can do it in this way: I will ask for enough to make one half of the walk this year, and I will come back next year for enough to finish the other half. That will make it \$4,000 each year. The money will be wasted if it is not sufficient, because we can not do it in an adequate manner.

The CHAIRMAN. How much would you want?

Commander FULLAM. Four thousand dollars; that will make a walk of one-half width. It would be economy. That is the estimate of the civil engineer. We can put in the other half (in width) next year.

The CHAIRMAN. The next item is "Water-closet building, \$1,500."

Commander FULLAM. We have no closets for workmen there now, and the condition is absolutely insanitary. The engineer made the estimate for that amount.

The CHAIRMAN. The next item is new "wharf for the *Reina Mercedes*."

Commander FULLAM. The *Reina Mercedes*; it is at the end of this dock, which now affords no proper and secure place for landing or mooring. The dock is all rotting away and going to pieces. It must be replaced. The idea is to run the new dock out from the causeway and to put the ship in alongside the wharf, thus throwing the two basins into one. It is the only thing to do for the ultimate development of the station. The estimate is \$15,000. It is a long wharf and is absolutely necessary.

The CHAIRMAN. The next item is for \$25,000 for cold-storage plant and bakery in connection with the training of bakers and cooks.

Commander FULLAM. The civil engineer's estimate for that is \$60,000, but if we get \$25,000 we can make a beginning, and the money can be properly expended. We have as many as 3,000 men at times. It is economy to bake all of our own bread, and if we have a place where meats and provisions can be stored, we can get them in large quantities; otherwise we would be compelled to get them in small quantities at much greater expense.

Mr. LOUDENSLAGER. How many men have you there?

Commander FULLAM. We now have 1,500 recruits and 600 others—about 2,000 in all. We are taking them in at the rate of 25 per day, or over 700 per month.

Mr. LOUDENSLAGER. How many men have you sent away?

Commander FULLAM. We have sent away 3,000 men within six months.

Mr. LOUDENSLAGER. How long do they stay there?

Commander FULLAM. Four months.

Mr. LOUDENSLAGER. What is the highest number you have had?

Commander FULLAM. Perhaps 2,500 recruits.

The CHAIRMAN. Would that be in the line of training?

Commander FULLAM. Yes. It is not naval training in the strict sense, however; it is, more properly, recruiting; it is very elementary in character. We can not train a man for the Navy in four months at these shore stations. They are taught a great deal, and they are benefited by the instructions we give them, and it is good for them when they go afloat. But you can not train a sailor on shore. We teach them to take care of themselves and keep themselves clean. It is elementary training, such as knotting and splicing, heaving the lead, pulling an oar, signals, military drill, and so forth.

Mr. LOUDENSLAGER. From whence do you get them now for the ships?

Commander FULLAM. Either from Newport, Norfolk, or San Francisco.

Mr. LOUDENSLAGER. Is this not preliminary training?

Commander FULLAM. Yes, but they are not trained men; they are, properly speaking, recruits still when they go on board ship.

Mr. LOUDENSLAGER. You have an estimate here of \$3,000 for walks, and so forth. That means a continuing appropriation from year to year?

Commander FULLAM. If we do not get more money it will mean that. We have spent only \$900,000 on the Newport Training Station since 1893, thirteen years. The Great Lakes station had \$1,000,000 this year. The Newport station has never been completed. It can not be completed without the expenditure of a considerable sum.

Mr. LOUDENSLAGER. You have an item for dredging a channel and basin. Is that necessary?

Commander FULLAM. Yes; very necessary. We have no proper basin for landing from and manning boats. The apprentices can not get into the boats now unless they climb over other boats. That is a bad condition to have at a naval training station. If we get \$3,000, we can clean out one basin and build a boat wharf and let it go at that. I have a scheme for dredging it out. I want to dredge out two basins eventually, but one will do for the present.

Mr. LOUDENSLAGER. You have an item of \$8,250 for a steam-distributing line. That would dig out a good many feet of line.

Commander FULLAM. That is a mere bagatelle. The island covers a mile of territory. It is a very large and extensive plant.

Mr. LOUDENSLAGER. Has anything been spent there before?

Commander FULLAM. Very little. We have a War College there. It has an independent plant, and a marine barracks which has an independent plant, and other buildings with independent plants also. It is a most extravagant system now, and we should have a central heating plant for economy both of fuel and labor.

Mr. LOUDENSLAGER. Where are the lines located and what do you propose to do?

Commander FULLAM. We propose to improve and extend them.

Mr. LOUDENSLAGER. How much money has been spent on those lines?

Commander FULLAM. Last year we spent \$5,300 on a general heating plant.

Mr. LOUD. I see that the storehouse is omitted. Could you not take steam from these pipes and heat those houses?

Commander FULLAM. The officers' quarters are heated now, and also the War College and hospital. They have to furnish their own coal and it has to be carted. We land 10,000 tons of coal at the south end of the island and it has to be carted three-fourths of a mile at an annual expense of \$3,000 per year. In that way we are spending the interest on \$50,000 per year. We want to build a proper power and light plant and operate the whole thing together.

Mr. LOUDENSLAGER. Where do you now land coal and supplies?

Commander FULLAM. We land them near the Reina Mercedes wharf, and then cart them about three-fourths of a mile to the power house and barracks. The intention in submitting these estimates was to make a complete station. The proper thing to do would be to build a new coal wharf and land the coal near the power plant; it would cost \$45,000 to build it.

Mr. HOBSON. You would save \$3,000 landing your coal?

Commander FULLAM. Yes, sir. We would save about \$3,000 annually for cartage alone.

Mr. HOBSON. Do you not think it would be advisable to recommend that?

Commander FULLAM. Yes, it is desirable. This west shore is rocky. The northwest gales blow in there at a tremendous rate. We want to build the coal wharf or pier so that we can take coal from schooners alongside. We could get our coal from Bradford, and it could be landed about 100 feet from the power house.

The CHAIRMAN. Where do you land your coal now?

Commander FULLAM. We land it at the south end of the island and cart it three-fourths of a mile to the power house.

Mr. LOUD. As to this pier, how much would it take to go to deep water?

Commander FULLAM. The engineer estimated about \$25,000.

Mr. OLCOTT. How long ought it to be, and how wide?

Commander FULLAM. Thirty feet wide would be ample, and 200 feet long; a smaller pier might answer the purpose.

Mr. OLCOTT. Can you build one to stand the strain for \$45,000?

Commander FULLAM. Yes; we could spend a good deal more if we had it, but it is not necessary. It need only be a narrow pier or breakwater.

Mr. OLCOTT. How much did you say it costs to handle the coal?

Commander FULLAM. Three thousand dollars a year, and it would cost \$45,000 to build a pier.

Mr. OLCOTT. I should think it would be economy to build the pier.

Commander FULLAM. As a business proposition it would be.

Mr. LOUD. The interest saved on the investment would more than pay for it.

Mr. LOUDENSLAGER. And no repairs; and you figure also that if you put a pier there and unload the coal, it is going to cost only a certain percentage to do the carting.

Mr. LOUD. One-half of the cost of hauling in and out would also be eliminated.

Mr. HOBSON. That would be a small cost.

Mr. LOUD. It would cost one-half.

Commander FULLAM. I do not think so.

Mr. HOBSON. Would you utilize that new pier for receiving other objects besides coal?

Commander FULLAM. We would utilize it for landing all the material and stores of the commissary and general storekeeper for the whole island. We now have a paymaster's storehouse at the south end of the island, and the paymaster's stores are landed there and carted three-fourths of a mile to the barracks at considerable expense. It is a very bad and expensive arrangement.

Mr. HOBSON. In other words, you have no proper landing place?

Commander FULLAM. No; everything we eat and wear and all our coal is landed three-fourths of a mile away and is then carted that distance, instead of being landed where it ought to be.

Mr. OLCOTT. Do you think that with \$45,000 you can build a pier sufficiently strong to sustain the weight of material that will go over it?

Commander FULLAM. Yes; the engineers say so.

Mr. HOBSON. Do you recommend that the pier be built?

Commander FULLAM. I think it is very necessary; but if you are going to cut out other things, I would rather you would cut out the pier, and we will continue to haul coal, etc., in this way. It is hard to say what items ought to be cut, but there are several small items which I hope the committee will put back. The Department did not consider my request and did not ask me to explain. They have cut out things that ought not to be cut out.

The civil engineer originally put in an estimate of \$800,000 for the completion of this station, and I would cut it down to \$240,000, nearly one-fourth.

Another thing that ought to be considered is that we have overhead wires, and a gale might blow down the whole business. They are dangerous in a big storm. Last year we had an appropriation of \$3,000 to put these wires underground, and that is just enough to put one-third of them underground. This year the civil engineer made an estimate of \$6,300 to put them all underground. If we do not get that \$6,300, we can not make a start, because there will be two kinds of wires.

Mr. HOBSON. I wish you would place in the record the different items you have recommended.

Commander FULLAM. Yes, I will do so; and I will name the items in the order of their importance and necessity, so that it may be inserted herein.

Items of special importance to the Newport Naval Training Station, in addition to those allowed by the Navy Department.

1. Electric distributing and lighting system, to increase----- \$8,340
 The electric distributing system has been sadly neglected. Many of the wires are not insulated and are thus a positive danger. There are not enough wires to maintain the voltage, nor are the wires of sufficient size to operate the motors for the shops at the lower end of the island. Due to the losses from small wires, operating expenses are increased. Additional wire is considered to be one of the most urgent necessities.
2. Underground conduit system, to continue----- 6,300
 A beginning has been made on an underground conduit system. An extension is necessary so that the remaining overhead wires may be abandoned. The aerial wires are extremely unsightly, are a danger in case of fire, and are expensive to maintain. Three thousand dollars is now available, but this is insufficient.
3. Improving and grading grounds and roads, to continue----- 6,000
 Some of the much-traveled roads are still in a frightful condition during the wet months of the year. The road-drainage system is in an incomplete state, due to lack of funds. Filling in and grading at various points are required to level up behind new sea-walls, and to change swampy areas into much-needed drill grounds, as well as to improve the sanitary conditions.
4. Walks at detention barracks (estimated, \$8,000; Navy Department allowed \$2,000)----- 4,000
 No walks have been provided in the vicinity of the new detention buildings. The surface of the ground is very muddy in wet weather and there is no suitable place for the drill formations. It is not possible to keep the buildings nor the occupants clean when the apprentices are forced to walk in the mud and dust. It is impossible for the officers and men to keep shoes and clothing in a reasonably clean condition. The walks are regarded as an absolute necessity.
5. Horses and additional laborers and labor-saving devices for the care of grounds----- 2,750
 The care of the grounds consumes a considerable proportion of the annual maintenance appropriation. A few additional horses and labor-saving devices will save their own cost in a short time and reduce the annual expenditures as well. It has been necessary to hire horses for station work.
6. Additional walks at barracks "C"----- 1,800
 The previous appropriation was insufficient to complete the walks about the buildings, although a very favorable contract was made. The remaining walks are as essential as those previously authorized, and should be built for sanitary reasons and comfort of the men at the earliest possible time.
7. Extending yard stables and wagon shed for proper care of horses and wagons----- 6,800
 The structure now used to house the vehicles is the former second story of an old barn, handed down from the old poor farm, when Coasters Harbor Island was deeded to the Government by the city. It is not in good condition, and is entirely insufficient in size. A large number of the implements and vehicles must now be left in the open air in all kinds of weather, and deterioration necessarily results. Living space should be provided for one man, or two, to whom the care of the horses is intrusted. The new buildings can be economically constructed as an extension of a small stable which was built a number of years ago. This is an absolute necessity.

8. Equipment storehouse ----- \$9,000

The existing storehouse is of galvanized iron. It is full to the roof and can not hold the stores which are on hand, and much less all those that should be on hand. A larger and more substantial building of a permanent and fireproof character must be provided. It is proposed to erect the equipment storehouse directly adjoining the old building, which it is proposed to devote to the shops. In this manner the money will be expended on the most economical basis and internal space can be more suitably disposed in connection with the shops.

9. Rebuilding present administration building ----- 15,000

The building now in use as an administration building is over one hundred years old, and until about twenty-five years ago was the Newport city poorhouse. The ceilings are low and are in such poor condition that they are falling down, the floors are sinking, and the roof is becoming unsafe. The timbers are rotting, and it has been necessary to bolster up the first floor. The plumbing and heating systems are in very bad condition. A new administration building is required to bring the equipment of the station to a proper working basis.

10. Paymasters' storehouse ----- 45,000

The present building for paymasters' and general stores is entirely inadequate, as the station has trebled in size since its erection. Also, more classes of stores are now received and kept on hand. The building is in a poor location, because the station, on account of its increased size, has been built up on the northern part of the island, leaving the storehouse three-fourths of a mile away. Too much time and labor are wasted in handling and hauling the stores such long distances. The offices and storerooms of the three paymasters should be concentrated in one building near the barracks system, instead of being scattered in various buildings. This is especially important because of the likelihood of combining the functions and duties of the three paymasters under one head, and because of the close relation existing in the work of the three officers.

It is proposed to devote the present general storehouse to the carpenter, machine, painter, plumber, and printer's shops, which are now in wooden buildings erected many years ago to serve a temporary use. These are now in such a dilapidated and unsightly condition that no village or manufacturing establishment of standing would tolerate them; much less should such a condition be allowed to exist at the most conspicuous point on a Government station. The buildings are also a fire menace, and the valuable machinery and plant is unsafe. It was in one of this group that the fire of January, 1906, occurred, causing loss of \$100. The present storehouse will accommodate the shops, is in an excellent location for that purpose, and can be remodeled for a small sum. Two projects of great benefit to the station may be thus carried out with a single appropriation.

11. New coaling pier and breakwater ----- 45,000

An additional pier and breakwater is required for landing about 10,000 tons of coal annually and to sufficiently protect the projected boat basin on the west side of the island. There is now no protection from the severe northwesterly storms. The structure will be ideal as a coaling pier and will thus serve a double purpose. It may be built directly opposite the coal bins. A great saving will result, because all coal is now hauled about three-fourths of a mile, from the peninsula to the power plant, at an annual expense of about \$8,000.

RECAPITULATION.

Naval training station, Rhode Island (buildings), public works appropriations.

	Estimates submitted.	Estimates approved by Depart- ment.
1. Electric distributing and lighting system, to increase	\$8,340.00	\$8,340.00
2. Paymaster's and general storehouse	64,800.00	
3. Increase in heating and lighting plant	31,350.00	15,000.00
4. Steam-distributing lines, to extend	8,250.00	8,250.00
5. Receiving and disinfecting building	30,000.00	30,000.00
6. Additional detention barracks building	20,000.00	20,000.00
7. Underground conduit system, to continue	a 6,300.00	
8. Repairs to Barracks B	9,800.00	9,800.00
9. Administration building	a 16,000.00	
10. Salt-water pumping system, to extend	a 9,800.00	
11. Steel plan case and office equipment for drafting room	600.00	
12. Coaling pier and breakwater	a 45,000.00	
13. Moving and extending old sea wall west of Barracks B	4,790.00	
15. New bridge and improvements to causeway	60,000.00	
16. Improving and grading grounds and roads, to continue	a 6,000.00	{ 6,000.00
17. Dredging channel and basin, to continue	7,500.00	{ 3,000.00
18. Walks at detention barracks	8,380.00	{ a 2,000.00
19. Equipment storehouse	a 9,000.00	{ 4,000.00
20. Horses and additional labor-saving implements and laborers for care of grounds	a 2,750.00	
21. Coal-storage bins, with equipment	7,640.00	
22. Additional walks at Barracks C	a 1,800.00	
23. Extending yard stables and wagon sheds	a 6,800.00	
24. Hauling-out ways	8,800.00	
25. Water-closet buildings for workmen	5,100.00	1,600.00
26. New wharf to Reina Mercedes	15,000.00	15,000.00
27. Improvements in rifle galleries and ranges	1,800.00	
28. Bins for salable condemned material	985.00	
29. Paving and grading peninsula	11,100.00	
30. Bakery and refrigerating plant, with equipment	60,000.00	25,000.00
Total	461,725.00	140,890.00

a Important.

Mr. HOBSON. Would you name, in addition to this, what you would recommend, assuming it is the purpose not only to partially build there, but to build a first-class station?

Commander FULLAM. If you build a first-class station, this will be nothing more than is necessary. I have cut the estimates of the engineer down to about one-fourth. I said we can get along. We must, however, have a place for our material and proper conveniences for housing comfortably and for training so many men. The Newport station is the biggest training station in this country.

Mr. HOBSON. This place looks like it is out in the woods.

Commander FULLAM. I accepted many of these cuts in the estimates. I said, "We can make a beginning and put the money in to the best advantage and next year ask for more." The underground-conduit system, however, is necessary.

Another fact is that we want a complete salt-water pumping system. At the present time we are paying the city of Newport \$12,000 a year for fresh water. It is used all through the officers' quarters. We ought not to use fresh water for flushing, if we are going to pay such exorbitant prices, when we can pump in salt water for \$9,800.

Mr. HOBSON. Then why did you strike it out?

Commander FULLAM. The Bureau of Navigation struck it out. There is not an item that ought not to go in to make that place adequate to handle the number of recruits that we have—not a single one.

I told the Paymaster-General this morning about the baking and refrigerating plant to provision 3,000 men. We have a school for cooks and bakers, in addition to the school for seamen, and the cold-storage plant and bakery is a most important item, not only for the cooking school, but for the proper and economical feeding of so many men.

There are too few laborers and horses for the work of the training station. The war college, naval hospital, and marine barracks depend upon the training station more or less and deplete our appropriation very considerably.

I am trying to build roads with a few men. I have only nine laborers on that whole island. I am trying to get roads and walks and gutters to keep the apprentices out of the mud. They track the mud into the barracks, and we complain about it. It is a hard proposition for all concerned. The training station at Newport has never been completed. It has expanded tremendously, and no proper provision has been made to complete its roads, walks, buildings, etc.

I have recommended to the Department that a board of inspectors be sent to Newport to examine that station and draw up a carefully digested scheme for its ultimate development and completion.

The CHAIRMAN. I think that a board ought to be appointed to investigate the whole thing, and I or some member of the committee will suggest it to the Department.

Commander FULLAM. It ought to be done. This whole basin ought to be dredged out. That is a matter of big expense. I could not haul a steam roller over the bridge because I was afraid that it would break down. Sixty thousand dollars was the estimate for that bridge, but it was cut out. Whenever we have a southwest gale the water goes over it, and then I have to repair the causeway.

A good deal of money is wasted because there is no cut-and-dried plan that should be followed. One commandant will do something, and another commandant will do something else. We ought to have a well-digested system.

Mr. LOUDENSLAGER. Do you think that will ever be possible?

Commander FULLAM. It ought to be.

Mr. LOUDENSLAGER. I didn't ask you that.

Commander FULLAM. If the Navy ever gets organized on a military basis I think it will be possible.

Mr. OLCOTT. You spoke of conduits for underground wires. Do you think you can make those economically for \$3,000?

Commander FULLAM. No; it would only be enough to do one-third. We must have enough to do the whole or we can not start. It would block our whole combination. Unless we get enough to do the whole we will not touch it. It would result in piecemeal botchwork and would ultimately lead to waste of money.

At 2.55 p. m. the committee adjourned until to-morrow, January 14, at 10.30 a. m.

THE COMMITTEE ON NAVAL AFFAIRS,
Monday, January 20, 1908.

The committee this day met, Hon. George E. Foss in the chair.

STATEMENT OF CIVIL ENGINEER GEORGE A. M'KAY, U. S. NAVY.

The CHAIRMAN. The first item is on page 122 of the bill, "Naval training station, Great Lakes, buildings: To complete buildings in accordance with the provisions of the act of Congress approved June 29, 1906, \$750,000."

I wish, Civil Engineer, you would tell us in a general way the situation with reference to the work at the naval training station, how many buildings you have under contract, and how the work is progressing. Before answering, I wish to say to the committee that Admiral Ross is very ill with pneumonia and could not be here and Civil Engineer McKay has come in his place.

Civil Engineer MCKAY. We have 26 buildings under contract at present. They are covered by three contracts, one for 10 main buildings, to cost \$1,500,000; one for 12 additional buildings, to cost \$370,000; and another contract for 4 officers' houses, which was originally let for \$54,000. The contractor on the 4 buildings defaulted, and the work was readvertised, after about \$9,000 had been paid on it—to be exact, \$9,026.55. Then, when we readvertised these 4 buildings, although all this work had been performed on them, they cost \$55,689 or more to complete them than the original contract, due to the advance in the price of material and labor. The total obligations under the contracts which have been entered into amount to \$1,994,853.36.

The CHAIRMAN. You can put into the hearing a statement showing the contract for each building?

Civil Engineer MCKAY. Yes, sir; I can make that up, showing the exact amount.

The CHAIRMAN. And also the character of the buildings themselves?

Civil Engineer MCKAY. Yes, sir.

Statement showing the expenditures and obligations under the appropriation of \$200,000 for buildings.

Paid on contract No. 5 for 4 officers' houses.....	\$9,026.55
Paid watchman on contract No. 5 after contractor abandoned work.....	137.81
Obligated on contract No. 8 for 10 main buildings.....	1,500,000.00
Obligated on contract No. 9 for 12 buildings.....	370,000.00
Obligated on contract No. 10, completion of 4 officers' houses.....	55,689.00
Paid to architect.....	65,000.00
	1,199,853.36
Available balance.....	146.64
Appropriation	2,000,000.00

If the defaulting contractor's bond on contract No. 5 can be collected and deposited to the credit of this appropriation the available balance would be increased by \$8,100.

Contract No. 8 for 10 main buildings includes the following:

Administration building.
Instruction building.
Drill hall.
Four dormitories.
Mess hall.
Power house.
Guardhouse.

Contract No. 9 for 12 additional buildings includes the following:

General storehouse.
Brig.
Boathouse.
Stables.
Receiving building.
Receiving galley and laundry.
Six receiving dormitories.

The following buildings were originally included in the estimate of \$2,000,000, but have not been contracted for:

Commandant's quarters.
Two officers' houses.
Receiving guardhouse.

If this appropriation were reimbursed by the sum paid the architect, it would then be possible to construct these 4 remaining buildings. When these 4 buildings are let, \$5,000 more will be due the architect, making his total fee \$70,000.

The CHAIRMAN. I wish you would state briefly just the condition of the work on each building.

Civil Engineer McKAY. The administration building: The walls are up to about 4 feet above grade, and considerable work has been performed on the underground plumbing. We had to stop the work this fall, pending the arrival of steel. That steel is now being delivered on the ground, and the work will be pushed as soon as the weather permits in the spring.

The instruction building: The foundations and walls are in to grade, and considerable work has been done on the underground plumbing.

The drill hall: Concrete piles have been driven. This was necessitated by the corner of the drill hall coming over a ravine, which we had to fill. The foundations of the drill hall are complete, except where beams, anchors, and bolts occur; we could not get the steel. The underground plumbing is about three-fourths completed. The steel for drill hall will be delivered this winter, and we expect to start again in March.

Mr. PADGETT. You stated that the work was delayed last fall on account of the nondelivery of the steel?

Civil Engineer McKAY. Yes, sir.

Mr. PADGETT. Was any loss occasioned to the Government because of that delay?

Civil Engineer McKAY. There was no direct damage except the delay which occurred. I do not think it was possible for the contractor to have gotten the steel there in time. It was hard to get the steel when the contract was let. It is a little easier now; the demand has decreased. There was some little delay in getting an inspector

there, and the contractor claimed that he should be allowed an extension because some steel was ready for inspection and was used on other work. I believe he made every effort to get the steel there.

Four dormitories: The walls on two are up to grade. The foundations are completed on the third. Excavation is completed on the fourth building. The underground plumbing is about one-fourth completed. We could not go on on account of the weather being too cold.

The mess hall and galley is one of the buildings which we have not touched. The reason is that it comes right over a ravine which has to be filled before the concrete piles can be driven. We let a contract for this grading considerably over a year ago, but the contractor defaulted. We had to take it away from him and we relet it. That work is now going on nicely. In the meantime we lost a great deal of time.

Mr. PADGETT. Did the contractor give a bond?

Civil Engineer McKAY. Yes, sir.

Mr. PADGETT. Are any steps being taken under the bond to indemnify the Government for that loss?

Civil Engineer McKAY. So far as our station is concerned, the matter has been reported to the Department, but I understand that proceedings can not be instituted against the bondsmen until the work has been completed by the other contractor in order to determine the exact cost of it. It is on a yardage basis.

Mr. GREGG. Could you not find enough level ground there to construct that building without putting it over a ravine?

Civil Engineer McKAY. Not and get the best working arrangement. There was one ravine there which cut right through our level ground, and we would have had to put in bridges or every time we went from one section of the station to the other we would have had to travel around the ravine. Also it was necessary to construct an inner basin for the accommodation of small boats, and we took advantage of this dredging to obtain material. We took about 60,000 yards of excavation from the basin to fill this and other ravines, and in that way got a very much more systematic arrangement of the buildings. The power house: Before we could do anything with the power house we had to construct a timber crib sea wall to make a site for it. The pumping plant must necessarily be down on the beach, because the suction head would be so great that we could not pump from up on the bluff, which is 75 feet high. With the pumping plant on the beach, it is advisable to consolidate the whole power plant right there. So we built the timber crib sea wall and we are pumping the area inside full of sand, and that delayed the work of starting the power house. The piles are now being driven. We want to push this so the work of the concrete foundations can be started in March. The specifications are being printed for the power plant, and plans are being made now for the heating system and the concrete tunnel. We want to do all that work during the next summer so that everything can be tested out next winter, including the radiation in the building. If we can do that we will avoid a great delay, because if we lose next winter for this testing, certain features of the contracts would have to hold over until another year, or until we got suitable weather.

Mr. GREGG. How many months can the work go on?

Civil Engineer McKAY. The concrete work?

Mr. GREGG. Yes, sir

Civil Engineer McKAY. We shut down about ten days early in December. We worked pretty well during the latter part of December and for a few days in January. Then we had to shut down the work. The work was very expensive because we had to heat all the materials for the concrete and cover everything at night, and even then it took the very closest inspection to prevent the concrete being damaged by freezing. It finally became so expensive that the contractor was willing to quit, and it became so risky that we were willing to have him quit until next spring. It is not advisable to do concrete or masonry work during January and February.

Mr. PADGETT. You spoke of driving piles through made earth there, and I know that is very frequently done. What is the estimated length of the durability of piles when put into the ground for foundations?

Civil Engineer McKAY. Wooden piles, if they had been driven on the upper plateau, would have lasted but a very few years. We had to use concrete piles. We are using wooden piles down on the beach, where they will be in the water, and there they will be practically indestructible.

Mr. PADGETT. I notice very often in the construction of these larger buildings that they drive down wooden piles before laying the foundation, and I was curious to know what was the estimated length of durability?

Civil Engineer McKAY. If you drive wooden piles where they would not be continually wet, they would rot very quickly. If both air and water get to them alternately, they would last a very short time.

Mr. PADGETT. But if they are put down in the solid earth on high ground?

Civil Engineer McKAY. I do not believe that you can rely on wooden piles for any length of time unless you keep them always under the water.

The CHAIRMAN. How are you getting along with the other buildings?

Civil Engineer McKAY. Stable: The walls are 8 to 10 feet above the ground.

The brig: The walls are now up to 8 feet above the ground.

General storehouse: All the foundations are in and the cut stone sill course and wall backing are in place.

The receiving building: The foundations are in and ready for the brickwork.

Six receiving dormitories: One building is up to about 4 feet above ground. The foundations of four others are up to grade. One is ready for the foundation; the excavation is completed.

Boathouse: I expect to drive piles for that building this week.

That leaves the receiving galley and the main guardhouse, which are both small buildings and where we have done nothing but the surface excavation.

As to the four officers' houses, the contract for which was let and had to be readvertised, the walls and roofs are complete and we expect to start plastering this week. The rough plumbing, heating, and wiring work is now being done. There are still four buildings in

the number originally intended to be included in this appropriation for which the contracts have not been let—the commandant's house, two more officers' houses, and one receiving guardhouse, a small building.

The CHAIRMAN. When do you expect to complete the whole plant?

Civil Engineer McKAY. We expect to receive recruits and to put the station in commission in July, 1909. There will, however, probably be a few things which will not be finished at that time and which will have to be cleaned up afterwards.

Mr. HOBSON. How soon could you get the station ready for receiving men in case of emergency?

Civil Engineer McKAY. We might possibly beat that by three or four months.

Mr. HOBSON. You could house and feed the officers and men on four months' notice?

Civil Engineer McKAY. No, sir; I think we could beat that estimate by three or four months. We could probably get it ready early in the spring of 1909. We could get the receiving group ready by next fall.

Mr. LOUDENSLAGER. On page 28 of Admiral Brownson's report there is a statement that does not seem entirely clear to me, and perhaps you can advise us. It says that bids were opened for 24 buildings at the Naval Training Station, Great Lakes, on the 1st of May, 1907, and that a contract was awarded to the Noel Construction Company for 10 buildings. How could that be done?

Civil Engineer McKAY. The bids exceeded our estimates. We were unfortunate that we opened the bids on the very peak of this wave of prosperity. We could not let the contract for the 24 buildings because the bids exceeded the money available. We therefore cut a number of items from the 10 principal buildings, choosing the buildings with which we could go ahead and start a station, and the Secretary let a contract for those 10 buildings. The remaining buildings we took and revised; some of them we drew new plans for entirely, cutting down the cost in every way we could, and later on the remaining buildings were readvertised and a contract for 12 more let at \$370,000.

Mr. LOUDENSLAGER. Three hundred and seventy thousand dollars for the 12 buildings?

Civil Engineer McKAY. Yes, sir.

Mr. LOUDENSLAGER. Under what authority was the contract for 10 buildings let when you had called for bids for 24 buildings?

Civil Engineer McKAY. We asked the lowest bidder, after making up a list and estimate of certain deductions and changes which would reduce the cost of these 10 main buildings, to submit figures on these changes, and he put in a letter that he would agree to omit these items and deduct a certain amount for these items from his bid, thus permitting the lowest bid to come within the estimated amount for the 10 main buildings, or \$1,500,000.

Mr. LOUDENSLAGER. Did you give the other bidders the same opportunity to modify their bids as you gave this one?

Civil Engineer McKAY. They could not have reached the figure of \$1,500,000 without changing their original bids. There was so much difference between the lowest bidder and the next lowest bidder that the amount of the deductions when proportioned for the two bids

would not have brought the second lowest bidder within the \$1,500,000 available.

The CHAIRMAN. Can you put in the hearing a list of the bids and the names of the bidders?

Civil Engineer McKAY. Yes, sir.

SUMMARY OF SCALE OF OFFERS ON TWENTY-FOUR BUILDINGS.

Bidder.	Amount of bid (entire work).
The Noel Construction Company.....	\$2,137,986
MacArthur Brothers Company.....	2,289,805
George B. Swift Company.....	2,505,724
Northern Construction Company.....	2,591,008
J. W. Snyder.....	2,463,267

The lowest bid itemized as to individual buildings is as follows:

Buildings.	Item No. A.
Administration.....	\$197,146
Instruction.....	384,122
Drill hall.....	202,682
Four dormitories.....	538,776
Mess hall and galley.....	128,735
General storehouse.....	82,123
Boathouse.....	59,190
Brig.....	25,684
Stable.....	23,744
Main guardhouse.....	17,786
Receiving guardhouse.....	6,784
Receiving building.....	43,184
Six receiving dormitories.....	232,341
Receiving galley and laundry.....	28,012
Power house.....	116,663
Commandant's house.....	51,014
Total.....	2,137,986

The CHAIRMAN. Who was the successful bidder?

Civil Engineer McKAY. On the 10 main buildings the Noel Construction Company, of Baltimore, and on the 12 buildings the Northern Construction Company, of Milwaukee. I do not know of any of the other bidders complaining as to the treatment. They put in lump sum bids, and also itemized bids for each building.

Mr. LOUDENSLAGER. The proposals read so you could select one or two or three or four buildings?

Civil Engineer McKAY. Yes, sir; that was covered in the specifications.

The CHAIRMAN. You are asking for \$750,000 this year. How much have you received of the \$2,000,000?

Civil Engineer McKAY. \$1,250,000.

The CHAIRMAN. This completes it?

Civil Engineer McKAY. Yes, sir.

Mr. HOBSON. I notice that \$500,000 was the appropriation last year; was all that expended?

Civil Engineer McKAY. No, sir; it has not all been expended, but it has been obligated and will be expended. We have brought the buildings along to a stage now where the work will move very rapidly this coming spring and summer.

Mr. HOBSON. Do you expect to expend the \$750,000 during the next twelve months?

Civil Engineer McKAY. Yes, sir. If we complete the station by July, 1909, it will call for the expenditure of all that money.

Mr. HOBSON. Your estimate is \$750,000, or was it cut down by the chief of the Bureau?

Civil Engineer McKAY. It has not been cut down. Congress originally authorized \$2,000,000, and this is the last installment.

Mr. HOBSON. I mean for the next twelve months?

Civil Engineer McKAY. Seven hundred and fifty thousand dollars is all we can ask for. We could not ask for any more, because Congress has fixed a limit of \$2,000,000 for the construction of these buildings.

Mr. HOBSON. You ask for the whole balance for the next twelve months?

Civil Engineer McKAY. Yes, sir.

Mr. GREGG. Will the \$2,000,000 complete and pay for the work, or will there be a deficiency?

Civil Engineer McKAY. For the buildings?

Mr. GREGG. Yes, sir.

Civil Engineer McKAY. If we must pay the architect out of the \$2,000,000 there will be a deficiency.

Mr. GREGG. Of how much?

Civil Engineer McKAY. For the amount of the architect's fees and also for the amount of the inspection charges.

In reference to the item of \$25,000 for inspection charges asked for in the estimates for the Naval Training Station, Great Lakes, Ill., I beg to state that this item is not to pay for architects' inspection, but is for Government inspectors. These 26 buildings now under construction, with the other officers' houses, etc., not yet let, are distributed all over a plot of ground three-fourths of a mile long and one-half mile wide. They are now in such condition as to permit their being pushed very rapidly from next March on to final completion. There are also a number of other contracts which will be under way at the same time—grading, sewers, drains, heating mains, tunnel, electrical mains, power plant, water intake, filter beds, bridge pile revetment, etc. There will undoubtedly be over 2,000 workmen on the site. Unless the work is closely watched there will be bad work covered up and not discovered till it is too late. Then the cost of repairs, maintenance, alterations, and changes will exceed the money requested for inspection. There should be 12 inspectors on these buildings. These will be appointed under civil-service rules, and released as the work is completed. Six other inspectors will be needed for the other contracts mentioned above.

Mr. GREGG. What will that approximate?

Civil Engineer McKAY. Seventy thousand dollars for the architect's fees and the inspection charges will amount to about \$25,000. That would be \$95,000.

Mr. GREGG. That much of a deficiency is now in sight?

Civil Engineer McKAY. I do not think it will be any more than that, because we have let the contracts for all but four of the small buildings and we have had repeated estimates on those buildings and know what they will cost.

Mr. BUTLER. Would it have been possible for the Department to have prepared the plans for the buildings at the Naval Training Station on the Great Lakes?

Civil Engineer McKAY. Yes; but there would have been a delay due to the organization of a drafting force of sufficient size to handle work of this character, amounting to an expenditure of \$2,000,000 and covering over 30 buildings.

Mr. BUTLER. You are not prepared in your Department to do this sort of work?

Civil Engineer McKAY. At the Naval Training Station, no, sir. I only have two draftsmen, one structural steel draftsman and one electrical draftsman. I have no architectural draftsman.

Mr. BUTLER. You belong to the Bureau of Yards and Docks?

Civil Engineer McKAY. Yes, sir.

Mr. BUTLER. Is there any force in the Bureau of Yards and Docks capable of doing this work?

Civil Engineer McKAY. Yes, sir. I think the Bureau of Yards and Docks has a number of architectural draftsmen, how many, I do not know, because I have been working under the Bureau of Navigation for a number of years.

Mr. BUTLER. You do not know whether the Bureau of Yards and Docks could have done this work?

Civil Engineer McKAY. I do know that the Bureau of Yards and Docks could have done this work.

Mr. BUTLER. Expeditiously?

Civil Engineer McKAY. Yes, sir. They are in a position to call upon additional men.

Mr. BUTLER. And they could have done it for less than \$70,000?

Civil Engineer McKAY. It probably would have cost less than \$70,000.

Mr. BUTLER. Do you not think they could have done it for less than \$10,000 with the force they already have?

Civil Engineer McKAY. No, sir. There are 350 plans and some of those plans took as much as two months of steady work to make. I do not think it would be possible to make the plans for less than \$35,000 for labor alone, exclusive of the other items.

Mr. BUTLER. That is a great deal of labor, it seems to me.

Civil Engineer McKAY. The architect used as many as 12 architects and draftsmen on this work at once. In addition to that the electrical man had four or five draftsmen and the steel man had five or six draftsmen.

Mr. BUTLER. The steel men prepare their own plans?

Civil Engineer McKAY. Yes, sir; but we have to make the preliminary drawings. The steel people make the details.

Mr. BUTLER. Does not the same architect make the plans for the steel work?

Civil Engineer McKAY. He makes the block plans but not the shop details.

Mr. GREGG. Why were not the buildings so planned that the \$2,000,000 would cover the architect's and inspection charges as well as the contract work?

Civil Engineer McKAY. That came about by all the material which entered into the construction of these buildings increasing so very rapidly in cost. At the time of drawing these plans everyone worked very hard, but still it took us a year and a half. When we started out we had to make our estimates on a cubical contents basis; that is the usual way, and as soon as we had the plans far enough advanced they were given by the architect to a contractor who gave detailed figures on them as a check to our estimates. Those detailed figures ran very close to the preliminary estimates. Then we went ahead, but in the meantime material of all classes was changing, the quantity of materials that enter into those buildings was so great that we could not revise our plans on account of the fluctuations; we would have had to be changing them all the time. We had to go ahead along one line and get something done. Just before the bids were opened everything took a very rapid increase. Lumber in some classes went up 50 per cent, cement was at its top notch, and practically all of the articles entering into the construction were very much more expensive. That made our bids run above our estimates. It was something that I do not think could have been foreseen or avoided unless you deliberately had cut down your buildings at the start to a cost which was considerably below what you thought they would cost. You could not tell whether the price of material was going to advance or decline. We had to take the estimates at that time and draw our plans along those lines. There are so many of these plans and so many of these working details that we could not attempt to revise them on account of every change in the cost of material. We simply had to do the very best we could and go ahead and get the plans finished.

Mr. GREGG. I think you stated that finally you had to change the plans to bring them within the limit of the appropriation?

Civil Engineer McKAY. That was practicable by cuts from the plans.

Mr. GREGG. Could you not have changed them enough to have also embraced the architect's and inspection fees?

Civil Engineer McKAY. Not without sacrificing the object of some of the buildings.

Mr. GREGG. You could have built the buildings?

Civil Engineer McKAY. We could have built some buildings, but they would not have been entirely satisfactory. We could have built them, but not of fireproof construction. We could have changed the steel and concrete floors, for instance, to wooden construction, but it would have been a bad investment.

Mr. BUTLER. Who makes the plans for the enormous buildings in the navy-yards, large storehouses, etc.?

Civil Engineer McKAY. The Bureau of Yards and Docks makes the plans for all of them.

Mr. MUDD. Do these expenses on page 122 come within the limitation of \$2,000,000?

The CHAIRMAN. The \$750,000 completes, as I understand, the \$2,000,000 for buildings.

Mr. MUDD. Are these items at the bottom of page 122 to come within the \$750,000?

Civil Engineer McKAY. No; just the \$750,000. All the others are extra.

Mr. MUDD. Outside of the \$750,000 and outside of the aggregate sum of \$2,000,000?

Civil Engineer McKAY. Yes, sir.

Mr. MUDD. All the plans provided for have been prepared and approved?

Civil Engineer McKAY. Yes, sir.

In answer to the question why we did not revise the buildings enough to provide for the \$70,000 for architect's fees, the reason was this, we thought we would have to do it, but Admiral Ross went to the Department and the Judge-Advocate-General was of the opinion that the language of the appropriation was such that the \$70,000 for the architect's fee was not necessarily a part of the \$2,000,000, and so we cut sufficiently to bring the cost of the contract construction of the 10 buildings within \$1,500,000. That is why we did not at that time cut still further.

Mr. GREGG. You could have cut, but for the ruling of the Judge-Advocate-General?

Civil Engineer McKAY. Yes, sir; but of course it would have been at the sacrifice of the buildings.

Mr. GREGG. You made some sacrifice as it was?

Civil Engineer McKAY. We had to; yes, sir.

Mr. HOBSON. Has adequate provision been made for wharfage, boathouses, and other docking facilities for the training station?

Civil Engineer McKAY. Nothing has been asked for yet on that, and nothing done except that in the contract for grading, which is being paid out of the money appropriated for the original purchase of the land, we have included the excavation of an inner basin down to a 10-foot depth, for small boats only. That basin will be from 100 to 300 feet wide and 800 feet long. Nothing has been done toward making a deeper harbor. A boathouse has been contracted for.

Mr. HOBSON. Has any pier been provided for or designed?

Civil Engineer McKAY. We have made preliminary studies for piers to protect this basin entrance. If we are going to have 10 feet of water in the basin we must necessarily run the piers out to 10 or 11 feet depth of water in the lake in order to keep the sand from washing in. When the dredge came and dug into the inner basin the channel which it then made was filled up with sand inside of ten days or two weeks, so that if we are going to use this inner basin we must run the piers out about 700 feet in the lake.

Mr. HOBSON. Could you not utilize gunboats of 10 or 15 foot draft at that station without further work? How far out would it have to anchor?

Civil Engineer McKAY. It would have to anchor a quarter of a mile out, perhaps a half a mile.

Mr. HOBSON. Have the engineers made any estimate on what would be required to properly finish the water front at that station?

Civil Engineer McKAY. A study has been made and the amount estimated to provide an 18 foot deep outer harbor, but no money has been asked for this.

Mr. LOUDENSLAGER. What was the estimated cost of that?

Civil Engineer McKAY. I can not say as I have not those figures. It is my recollection it runs just under \$400,000 for the piers, dredging, and breakwater; that is, for everything complete.

The CHAIRMAN. You are not asking for an outer harbor?

Civil Engineer McKAY. No, sir.

Mr. PADGETT. You spoke awhile ago of a deficiency of \$95,000 in two items, one of \$70,000 for architect's fees and one of \$25,000 for the inspection charges, provided for on page 122?

Civil Engineer McKAY. Yes, sir.

Mr. PADGETT. I notice there are also items for pile revetment and grading, \$35,000, and construction of trestle to power house, \$10,000, and other items mentioned here. Are they also additions that do not come within the \$2,000,000 and that were intended to come within the \$2,000,000?

Civil Engineer McKAY. No, sir. They are items which are outside of the building. The \$2,000,000 applies to the construction of buildings only.

Mr. PADGETT. It did not cover those other items?

Civil Engineer McKAY. No, sir.

Mr. ROBERTS. What material have you used in the exterior of the buildings?

Civil Engineer McKAY. Principally brick, with a stone sill course at the ground, and the only decorations used are of terra cotta.

Mr. ROBERTS. Is it common brick or face brick?

Civil Engineer McKAY. A common brick, but of a high grade. It is called a paver. It is a side cut vitrified red shale paver. It is sold in Indianapolis as a common brick.

Mr. ROBERTS. Have you any buildings that have stone exteriors?

Civil Engineer McKAY. No, sir; they are all brick except for the terra cotta courses and the stone base course.

Mr. ROBERTS. The buildings will be brick with terra cotta and stone trimmings?

Civil Engineer McKAY. Yes, sir.

Mr. ROBERTS. The \$2,000,000 as applied by the Bureau of Navigation is the amount required for the construction of the buildings there?

Civil Engineer McKAY. Yes, sir; for the contract construction, but we have had to pay \$65,000 of the appropriation for the architect's fees.

Mr. ROBERTS. Leaving out the architect's and inspection fees, you have not applied any of the \$2,000,000 to the water system or the sewer system?

Civil Engineer McKAY. No, sir.

Mr. ROBERTS. And a hospital is required there?

Civil Engineer McKAY. A hospital was not included in the \$2,000,000 estimate.

Mr. ROBERTS. You do not apply any of the \$2,000,000 toward the grading and fixing up of the grounds?

Civil Engineer McKAY. No, sir.

Mr. ROBERTS. If I remember correctly, Admiral Ross told us last year that the storms in the neighborhood on the water front were very severe, and something would have to be done to prevent damage done by washing?

Civil Engineer McKAY. Yes, sir.

Mr. ROBERTS. Have you considered that at all?

Civil Engineer McKAY. We have already put in three cribs. I have a photograph of the type of crib that we are putting in to stop

that. The cribs are at right angles to the beach, and they stop the current that runs along there.

The CHAIRMAN. How much did it cost you to put them in?

Civil Engineer McKAY. The two cribs cost \$1,950 apiece. That was by contract. We built another one that cost us less by day labor, but the exact figures I have not with me.

Mr. ROBERTS. Will those cribs effectually prevent the bank from being washed away?

Civil Engineer McKAY. Yes, sir. They build up a sand beach and the sand keeps the waves from cutting into the bank.

Mr. ROBERTS. Have you made any estimate as to how much money it will cost to get that station fully completed for use? I mean including the basins, the piers, for laying the water and sewer systems, everything, inclusive of the buildings?

Civil Engineer McKAY. Yes, sir; but that would not include the outer harbor. We have not made a figure on that.

Mr. ROBERTS. It only includes the inner harbor?

Civil Engineer McKAY. Yes, sir.

Mr. ROBERTS. How much does that estimate amount to?

Civil Engineer McKAY. Two million dollars for the buildings; architect's and inspection fees, \$100,000; power plant, distributing main, sewage disposal plant, water filtration, heating and electrical mains, and all that work, including the concrete tunnel, \$393,100, and other items for which money is not yet requested, \$313,000.

Mr. ROBERTS. What are those items?

Civil Engineer McKAY. Main roads, sidewalks, inner basin and sea wall, exterior lighting and mains, concrete bridge, walls, and fences—

Mr. ROBERTS. Grading, and so on?

Civil Engineer McKAY. Yes, sir.

Mr. ROBERTS. Is that the extent?

Civil Engineer McKAY. That is the extent, with the exception of the furniture and equipment.

Mr. ROBERTS. What will that amount to?

Civil Engineer McKAY. I have not made an estimate.

Mr. ROBERTS. That does not include the hospital?

Civil Engineer McKAY. No, sir; that comes under a different bureau.

Mr. ROBERTS. Do you know of any other expenditure that will be required to complete that station for use?

Civil Engineer McKAY. No, sir; I think that includes everything, so far as the Bureau of Navigation is concerned.

Mr. ROBERTS. I want to get the total amount that will be required to get that station ready to be used as a training station by the Navy, not by one bureau, but by the entire Navy.

Civil Engineer McKAY. The question of whether or not the Marine Corps would want quarters there might come up.

Mr. ROBERTS. Will it not be necessary to make some provision for the Marine Corps?

Civil Engineer McKAY. It will not be necessary to have them there.

Mr. ROBERTS. It will not be necessary?

Civil Engineer McKAY. No, sir.

Mr. ROBERTS. Does your estimate include getting the spur of the railroad in and those expenses?

Civil Engineer McKAY. They are in now.

Mr. ROBERTS. Then, roughly, between \$600,000 and \$700,00 in excess of the \$2,000,000 is required, not including the hospital building?

Civil Engineer McKAY. We are also expending the money which was appropriated for the purchase of the land. This land was donated, and the money became available for improvements, and we are doing the grading and dredging for the inner basin, building the sewers and drains, water-supply mains, the bridges, and all of that work out of the original \$250,000.

The CHAIRMAN. You can put in a statement showing just what the \$250,000 is being used for?

Civil Engineer McKAY. Yes, sir.

Statement of expenditures original appropriation of \$250,000, act approved April 27, 1904.

Greeley Howard survey	\$450. 00
Maintenance, 1906, material and labor	13, 283. 18
Maps, surveys, calculations, borings, furniture, testing apparatus, clerical force, etc., to June 30, 1906	4, 398. 76
Same to October 31, 1896	958. 55
Railway spur track contract	3, 200. 00
Paid contractor on grading contract No. 1	12, 777. 45
Obligated contract 11, on completion of grading	26, 427. 06
Paid on pipe conduit bridge, contract No. 2	5, 314. 00
Paid on main bridge, contract No. 3	27, 967. 00
Paid on main bridge, extra concrete	33. 12
Paid on water mains, contract No. 4	18, 674. 00
Paid on water mains contract, supplemental agreement	247. 83
Paid on water mains extension, contract No. 7	6, 300. 00
Paid on water mains extension, additional hydrant	55. 00
Obligated on timber crib sea wall around pierhead site, contract No. 6	12, 950. 00
Obligated on sewer and drain contract No. 12	55, 390. 00
In paymaster's hands for pay rolls	1, 000. 00
Total (January 1, 1908, expended and obligated)	189, 425. 95
Appropriation	250, 000. 00
Available balance	60, 574. 05

NOTE.—If contractor's bond on contract No. 1 can be collected and deposited to the credit of the appropriation it will increase same by \$5,500.

There will be required to build four additional officers' houses the sum of \$60,000.

Detailed statement as to estimate of cost of items to cost \$393,100.

Electrical mains and conduits	\$27, 000
Heating mains and coverings	100, 000
Concrete tunnel and heating conduits	68, 000
Power plant equipment	100, 000
Heating station equipment	30, 000
Sewage disposal plant	21, 000
Water intake and filter beds	47, 100
Total	393, 100

Statement of expenditures proposed under appropriation estimate "Naval training station, Great Lakes, 1909" (maintenance).

General object	Amount.
Labor and material.....	\$4,660.00
General care, repairs, and improvements to grounds, buildings, and piers.....	10,030.00
Street-car fare.....	150.00
Purchase and maintenance of live stock, and attendance on same.....	1,100.00
Wagons, carts, implements, and tools, and repairs to same.....	1,550.00
Fire extinguishers.....	300.00
Heating, lighting, and furniture.....	10,700.00
Stationery, books, and periodicals.....	900.00
Ice and washing.....	30.00
Expressage.....	50.00
Packing boxes and materials.....	30.00
Postage, telegraphing, and telephoning.....	150.00
Contingent expenses.....	350.00
Total.....	30,000.00

Data relative to contracts.

No.	Contract.	Date.	Contractor.	Amount.	Appropriation.
1	Grading.....	June 25, 1906	H. E. Overstreet..	\$35,400.00	Naval training station, Great Lakes, act of April, 27, 1904.
*2	Pipe-conduit bridge..	July 19, 1906	Wallace Marshall..	5,314.00	Do.
*3	Main bridge.....	do.....	do.....	27,967.00	Do.
*4	Water supply mains.....	Aug. 8, 1906	T. H. Iglehart....	18,674.00	Do.
5	Officers' quarters....	Oct. 20, 1906	H. E. Overstreet..	54,000.00	Buildings, act of June 29, 1906.
*6	Timber crib sea wall..	Mar. 27, 1907	James E. Hale...	12,950.00	Naval training station, Great Lakes, act of April 27, 1904.
*7	Water mains extension.	May 17, 1907	H. C. Patterson..	6,300.00	Do.
8	Ten principal buildings.	May 31, 1907	Noel Construction Co.	1,500,000.00	Buildings, act of June 29, 1906.
9	Twelve additional buildings.	Sept. 9, 1907	Northern Construction Co.	370,000.00	Do.
10	Completion of officers' houses.	Sept. 20, 1907	James E. Hale...	55,689.00	Do.
11	Completion of grading.	Sept. 30, 1907	Edwards Bros....	26,427.06	Naval training station, act of April 27, 1904.
12	Sewers and drains....	Oct. 24, 1907	H. D. Hallett....	55,390.00	Do.

Contracts marked * are completed.

Estimated cost of station.

Buildings (30).....	\$2,000,000
Architect's fee and inspection charges.....	100,000
Pile revetment.....	35,000
Bridge to power house.....	10,000
Power plant.....	393,100
Heating plant.....	
Heating mains.....	
Electrical mains.....	
Concrete tunnel.....	
Sewage-disposal plant....	313,000
Water intake.....	
Water-filter beds.....	
Main roads.....	
Sidewalks.....	
Inner basin and sea wall.....	2,851,100
Basin entrance piles and dredging.....	
Exterior lighting and mains.....	
Concrete fences and walls.....	
Concrete bridge.....	
Garbage crematory.....	
	2,851,100
Original appropriation for purchase of land and establishment of station.....	250,000
Total.....	3,101,100

This does not include furniture and equipment, nor appropriations required by other bureaus.

Mr. ROBERTS. How was that appropriation worded?

Civil Engineer MCKAY. "For the purchase of land and the establishment of a naval training station on the Great Lakes, \$250,000."

Mr. ROBERTS. Then, if you deduct the \$250,000 from the six or seven hundred thousand dollars, you would get at the amount?

Civil Engineer MCKAY. No, sir; the six or seven hundred thousand dollars is in addition to the \$250,000.

Mr. ROBERTS. Then it is \$250,000 and six or seven hundred thousand dollars additional?

Civil Engineer MCKAY. Yes, sir.

Mr. ROBERTS. And possibly \$400,000 on top of that for the outer basin?

Civil Engineer MCKAY. Yes, sir; if Congress desires an outer harbor, but that is not necessary for the training of the recruits there.

[No. 2.]

COMMITTEE ON NAVAL AFFAIRS.

**House of Representatives,
Wednesday, January 8, 1908.**

The committee met this day at 10.45 o'clock, Hon. George E. Foss in the chair.

BUREAU OF SUPPLIES AND ACCOUNTS.

**STATEMENT OF PAYMASTER-GENERAL EUSTACE B. ROGERS,
U. S. NAVY.**

The CHAIRMAN. Please turn to "Pay of the Navy," on page 2. I want you to speak about those clerks. Captain Winslow referred to them yesterday. I understand you are employing the first clerk to commandants, navy-yard, at the present time?

Admiral ROGERS. No, sir. The part of this that I am interested in is the second in italics on the fourth line—"two clerks to general inspectors of pay corps and clerk to pay officer in charge of deserters' rolls."

The CHAIRMAN. Oh, yes. How many clerks have you at the present time of these?

Admiral ROGERS. We have two. There are two general inspectors, sir, and each one has a clerk.

The CHAIRMAN. What are they paid at the present time?

Admiral ROGERS. \$1,300 a year.

The CHAIRMAN. Will this be an increase of pay?

Admiral ROGERS. No, sir; not in any way. I can say in a few words just what this means. The inspection of pay officers' accounts by the general inspectors, who are officers of the Pay Corps, commenced in 1889. The Comptroller then decided that the general inspector of the Pay Corps was entitled to a clerk at \$1,300 per annum. This went on unbrokenly and uninterruptedly, the pay of these clerks being accepted by the Treasury Department, until I became Paymaster-General, fourteen months since, and I wished to make more stringent the inspection of paymasters' accounts, and I asked Mr. Bonaparte, the Secretary, to authorize an additional inspector. He granted the authority, and the orders were issued. When the second inspector came to nominate a clerk the Auditor's office informed me that it would not allow his pay. They said the reason was that the estimates had stated that there should be a clerk to the general inspector, and there was no authority to have a second clerk to the second inspector. I laid the matter before the Comptroller, and although I advocated the matter with all my power he came to the conclusion that a clerk to the inspector was not authorized by law, thus

The CHAIRMAN. Those are new words?

Admiral Rogers. Yes, sir.

The CHAIRMAN. You ask for an increase of \$48,000. What is the necessity for the increase over that of last year?

Admiral ROGERS. There is actually no increase over last year, but this will explain it: The amount paid from the appropriations of the various bureaus for telephone rentals, telephone charges, and postage, also for ice during the fiscal 1907, aggregated \$48,000, made up of \$38,000 for telephones, and so forth, and \$10,000 for ice, which, added to the \$675,000 appropriated under "Pay, miscellaneous," for the present year, would make, as stated, the \$723,000 we ask for. We ask for no increase for "Pay, miscellaneous," proper.

The CHAIRMAN. I wish you would furnish, in the hearings, a statement showing the amount expended under these general heads in this paragraph.

Admiral ROGERS. I have it here.

Mr. LOUDENSLAGER. You have taken \$48,000 out of some other item?

Admiral ROGERS. Yes; and added it to this.

Mr. LOUDENSLAGER. What item have you taken it out of?

Admiral ROGERS. You can see here [submitting statement]:

Statement C, showing approximately the amounts which will be charged to various appropriations during the fiscal year 1907 for telephone and telegraph service.

Bureau.	Appropriation.	Amount.
Yards and Docks.....	Maintenance, Yards and Docks.....	\$6,000.00
Equipment.....	Contingent, Equipment.....	3,000.00
Navigation.....	Contingent Navigation.....	\$7,537.50
Do.....	Training station, California.....	348.00
Do.....	Training station, Great Lakes.....	140.00
Do.....	Training station, Rhode Island.....	488.50
Do.....	Contingent, Naval Academy.....	456.00
Do.....	Naval War College.....	30.00
Ordnance.....	Contingent, Ordnance.....	9,000.00
Construction and Repair.....	Construction and Repair.....	5,000.00
Steam Engineering.....	Steam machinery.....	4,000.00
Supplies and Accounts.....	Contingent, Supplies and Accounts.....	2,000.00
Medicine and Surgery.....	Contingent, Medicine and Surgery.....	7,000.00
Do.....	Naval Hospital fund.....	1,000.00
		2,000.00
Estimated amount required for fiscal year 1909.		38,000.00

STATEMENT D.

Approximate cost of ice for cooling drinking water during the fiscal year 1907.

Bureau.	Appropriation.	Amount.
Yards and Docks.....	Maintenance, Yards and Docks.....	\$1,202.48
Equipment.....	Contingent, Equipment.....	1,179.09
Navigation.....	Naval Home.....	492.49
Ordnance.....	Contingent, Ordnance.....	840.99
Do.....	Torpedo station.....	92.70
Construction and Repair.....	Construction and Repair.....	1,665.84
Steam Engineering.....	Steam machinery.....	1,129.88
Supplies and Accounts.....	Contingent, Supplies and Accounts.....	1,885.90
Medicine and Surgery.....	Contingent, Medicine and Surgery.....	1,131.04
Total.....		9,620.41

The above statement does not include ice for naval hospitals, for the reason that to do so would add to, rather than decrease, the number of requisitions and vouchers necessary.

You will notice here is the postage, telegrams and telephones, and here is the ice. There is no real increase asked for.

Mr. THOMAS. Why should there not be a saving if you consolidate these different departments under one head?

Admiral ROGERS. I think, sir, it will result in a saving eventually, but I am in no condition now to state what that will be until it is tried for a year.

Mr. THOMAS. Your point now is that it will be a saving in the clerical work?

Admiral ROGERS. Yes, in asking for new clerks. It is the clerical work on requisitions, contracts, vouchers, and things of that kind which cost money. It has been estimated in previous years that each one of our vouchers in the Navy costs about \$10 on the whole. That is about \$700,000 a year in the clerical work culminating in vouchers. Of course that includes also all work that leads up to them. Now if we can reduce the number of vouchers and consequently the cost that leads up to them, or both, we are doing good service.

The CHAIRMAN. What reform have you made on that line during the last year? I know you have done very important work in that bureau. Please state to the committee just what has been accomplished.

Admiral ROGERS. Of course, most of the reforms instituted went into operation only on the 1st of July last, and they were preceded by a great deal of thought, and in getting authority from the Secretary of the Navy and the Comptroller of the Treasury for the changes. The first and important change was that the vouchers, of which we have about 70,000 annually, and which used to come from every yard in the country to the Paymaster-General's office after having been approved by the commandant. They go now from the yard, from the general storekeeper who draws them up, and without going through the commandant's office, direct to the pay office by whom the voucher is to be paid; and that plan has resulted in a saving of time in paying the vouchers of from thirty days to less than ten days.

The next reform was in the establishment of a mailing list, by which is meant a list of contractors, dealers, merchants, divided by trades, all over the United States, to whom should be sent advance notices of the Bureau's intention to buy various articles, these purchases being only by contract after advertisement, not the ordinary purchases of small quantities through the pay office where there is no contract. We have a list now of over 3,000 merchants throughout the United States, and as soon as our schedule is made up and sent to the Government Printer we forward them an advance notice giving the number on the schedule and of the articles advertised for, so merchants are now informed from ten days to a fortnight earlier than they used to be of purchases made after advertisement. The result is found on page 4 of the Paymaster-General's report, which shows the increased number of bids received from July to December, 1906, and from January to June, 1907. The figures are as follows:

The payment of the Government's obligations has been quickened. Since July 1 the signatures of the commandant and the Paymaster-General have been

dispensed with on public bills. Such bills now go direct from general storekeepers to pay offices and are quickly paid. Contract and transportation vouchers still come to the Bureau, but are paid in much less time than heretofore required.

In March, 1907, a mailing list was established, in which the names of merchants are arranged alphabetically and by trade. To these are regularly sent printed lists of supplies under advertisement, in which the recipients are likely to be interested, together with a return postal card, so that schedules wanted can be asked for by numbers. The result of this scheme has been most satisfactory, as the following table shows:

Volume of business of the contract section during fiscal year 1907.

Period.	Number of firms bidding.	Number of bids received.	Average bids per class.	Number of schedules issued.	Number of copies of schedules distributed.
July-Sept., 1906.....	2,102	6,129	3.155	149	139,500
Oct.-Dec., 1906.....	2,900	9,787	3.377	170	108,400
Jan.-Mar., 1907.....	2,673	7,887	3.24	186	173,000
Apr.-June, 1907.....	3,482	15,828	5.58	453	322,000

The increase during the final quarter is due entirely to the mailing list—to the giving of early information as to schedules. The number of bidders increased during the year from 1,700 to 2,800. At the present time there are over 3,000 names on this list.

I have had many letters commending this particular phase of the Bureau's work which bring it into closer touch with the business world and enable the Department to get wider competition. Articles are classified, and under one class are grouped all articles of hardware and under another class all articles of dry goods are together and in another all kinds of lumber. That is what is meant by a class. The number of bids per class has increased from something over three to five and fifty-eight hundredths, which is an increase of almost 100 per cent, and all of this means, of course, wider competition and lower prices.

The most material change that has been made is gone over in the Paymaster-General's report—as to the question of changing the method of accounts. The members of the committee may remember that about two years ago or more certain requests were made to the Navy Department to supply certain information which could not be furnished, and there was a great deal of criticism, both in the press and in the committee and in the Navy Department, on that account. I was then on duty in the Boston Navy-Yard, and, inasmuch as I could never get a very clear idea of it until I became Paymaster-General, the first thing I did was to lay plans to devise a scheme for changing the manner of keeping the books of the Bureau of Supplies and Accounts so that almost every question that the committee or the House should ask of the Bureau of Supplies and Accounts could be answered promptly, except, of course, in questions of small detail.

Formerly we entered the total amount appropriated for the Navy practically in one sum. Then we credited against the total amount our expenditures absolutely without regard to appropriations. We could have told you how much a yard or ship or certain work cost, but if you asked us what part the appropriations of the bureaus of

Yards and Docks, Equipment, Construction and Repair contributed we could not have told you. We can do that next year.

The CHAIRMAN. What other reforms have you worked out?

Admiral ROGERS. There are minor reforms. One is as to drawing money requisitions. We have reduced the number of these requisitions from 7,000 to less than 1,800. Then instead of subdividing requisitions under specific appropriations in our office we subdivide when the expenditures are made. In fact, the expenditure itself subdivides it, because the expenditure voucher contains the name of the appropriation at the head of it and these grouped and entered.

Mr. HOBSON. Mr. Chairman, I think it would be happy if the Paymaster-General could, at this point or at some other point, tell us what future reforms he has in mind for this coming year.

The CHAIRMAN. I guess you had better wait until we finish his Bureau.

Mr. HOBSON. Or ask him whether he has any other reforms in mind.

Mr. THOMAS. This is a question I have in mind: I do not know whether it is the proper thing to ask, but has he the support of the different heads of bureaus in this scheme of his?

Admiral ROGERS. Most cordially, without exception. I went with a project to the Secretary of the Navy last spring, and when I handed it to him he said, "How did you get that?" It was the unanimous support of every bureau of the Navy Department to a proposition that was deemed impossible. It was accomplished by not forcing my ideas down their throats, but by accepting an even-handed compromise. I would like to make it as emphatic as I can, that I do not think that at any time in the history of the Navy have the bureaus been working so cordially together and with less friction than now, notwithstanding the newspapers of the country to the contrary.

Mr. HOBSON. I think what the Admiral would have to say to us would throw light on that.

Admiral ROGERS. The most important thing I have gone into in my report is this great change in the naval supply fund, and I will not take the time of the committee to elaborate upon that, but if you will simply turn to page 5 of my report and read a letter which I quote from on page 6, you will get a good idea of it. I can do no more in my hearing than repeat that.

The CHAIRMAN. Just make that part of your report a part of the hearing in the record, so that we can read it.

Admiral ROGERS. I will do so with pleasure.

Following are the passages in the report referred to:

Upon assuming my duties as Chief of the Bureau of Supplies and Accounts I was confronted with a serious situation, which arose from the inability of the Bureau, through its accounting system, to furnish information concerning the details of expenditures under the principal subdivisions of the various naval appropriations. This inability was due to the fact that the books of the Naval Establishment showed as receipts the gross sums appropriated each year, and charged the various items of expenditures by grouping them under titles, which exhibited the totals expended for given objects, but not with reference to the appropriations contributing thereto. This system of bookkeeping was based upon the act of March 2, 1889, as follows:

"It shall be the duty of the Bureau of Supplies and Accounts to cause property accounts to be kept of all the supplies pertaining to the Naval Establishment, and to report annually to Congress the money values of the supplies on hand at the various stations at the beginning of the fiscal year, the dispositions

thereof, and of the purchases and the expenditures of supplies for the year, and the balances remaining on hand at the end thereof."

and upon that portion of the act of June 30, 1890, as follows:

"All supplies purchased with moneys appropriated for the naval service shall be deemed to be purchased for the Navy and not for any bureau thereof, and these supplies, together with all supplies on hand, shall be arranged, classified, consolidated, and catalogued, and issued for consumption or use under such regulations as the Secretary may prescribe, without regard to the bureau for which they were purchased."

The Bureau was able to state accurately the cost of a ship or of the maintenance of any particular yard, or what sum was expended for repairs on certain vessels, or any one of hundreds of similar facts; but if it were asked what appropriations made up the expenditures or what stores were bought out of some specific appropriation, it must have failed to reply. The situation was further complicated by the store system of the Navy, which compelled the separation of all stock according to the appropriations under which it was purchased until the end of the fiscal year, when all supplies purchased under annual appropriations became "common general stock" for the use of any or all bureaus, without charge against their current appropriations. The result has been an excessively cumbersome, difficult, and expensive method of keeping stock accounts. Under this system it was impossible to ascertain what part of material expended was paid for out of current appropriations, and what part came from this common stock for which there was no charge made. The Bureau could report the total cost of supplies purchased during the fiscal year, but could not tell how much each appropriation had contributed to the cost of such total. It could state accurately the aggregate cost of all material used, but could not state to what extent the various appropriations had been charged for it. It was ignorant of the value of supplies bought and not used, and which went over each year to add to the annually increasing volume of stock on hand.

To reduce this stock, to give it accountable value, to know what part of the annual expenditures of stock was purchased with money appropriated by Congress for such annual expenditures, and what part came from the reserve of material without actual cost to the annual appropriations of the bureaus was the problem which faced this Bureau and the solution of which was imperatively demanded by the Department and by Congress.

It did not take long to determine that the cornerstone of any system of book-keeping that would give the expenditures under the subheads of appropriations must be some form of suspension account into which all stores purchased would go and from which all stores used must come. In the naval supply fund the Navy Department had such an account already in existence. If it could be extended so as to become a clearing house for stores, the problem was solved; the answer could be given. This Bureau, therefore, with the concurrence of all the other bureaus, laid before the Department a plan to consolidate under the naval supply fund all that stock technically known as "common general stock."

This plan was approved by the Department, and thus was placed under one account all the reserve stock of the Navy, with some exceptions, these being special stores peculiar to each bureau, such as fuel, ordnance material, boats, and some other purely technical supplies, and these will, in all probability, eventually pass through this account. In no other way is the keeping of accounts under subheads of appropriations possible.

In submitting this proposition to the Department the Bureau stated as follows:

"The Bureau will say, however, and without any wish to exaggerate, that the saving which will be made by this plan will be incalculable—so great that the Bureau hesitates to define it for fear of perhaps overstating its importance.

"It must be said, however, that, in the opinion of the Bureau, it will reduce the work of stock keeping in the navy-yards, at a moderate estimate, 25 per cent; that it will so consolidate and strengthen the books of the Naval Establishment under the direction of the Bureau itself as to very largely increase their clearness and reduce their volume; that it is believed that it will, by the elimination of obsolete stores, consequent to the proper appraisal of material and condemnation of useless articles, increase the available space in store-houses and probably influence the annual demands for augmenting storage space in the navy-yards and the erection of expensive and numerous buildings; that it will enable the Bureau, as the result of the proper consolidation and supervision of stores, to carry so large a stock as to settle the innumerable questions

that are now arising as to setting aside supplies for specific work and job orders; that it will very largely reduce the number of open-purchase requisitions and resulting orders for small quantities of stock at uneconomical prices; that it will remove all temptations to accumulate undue reservations of stock at the end of the fiscal year; that it will permit the introduction of a system by which annual appropriations shall be specifically charged with all supplies used by them, either for issue or for manufacturing departments. Indeed, the Bureau might go on almost indefinitely multiplying the examples of the increased efficiency and good administration that may be gained by this very simple change. It regards the proposed step as the most important and far-reaching in its effects of any that have been taken by the Bureau since the initiation of the naval supply fund itself."

Admiral ROGERS. The most important change, and the one that will interest every member of this committee, is this, that heretofore we have had what is called "common general stock," which is the stock which has been in the storehouses of the Navy for more than one year. That stock could be drawn upon by any bureau that wanted it without its being charged against their current appropriation. The result of that was that nobody could tell what the cost of manufacturing was at a navy-yard. We got a record that stated so much labor and so much material, but the material was made up of the purchases under the current appropriation of the bureau that was doing the manufacturing, and also such common general stock as happened to be in store which suited their general purposes, which was invoiced to them at cost, but with no charge against the appropriation which Congress gave them for sustaining and carrying on that department or bureau for the year. The inauguration of this improved naval supply fund is the biggest reform that has been made. As it is now, with the exception of boats, anchors, and certain other technical articles which are peculiar to a bureau, everything used must be paid for, and it is now impossible for any bureau to use any article of stores which is not chargeable against the current appropriation of that bureau, with the exception of a very few of these excepted articles peculiar to the bureau, and we hope in the course of another year to bring them, too, within the naval supply fund.

Mr. LOUDENSLAGER. Is there any reason why they should not be included?

Admiral ROGERS. There is absolutely none. I will give you one example. Congress appropriates \$7,000 for a house, say, at New Orleans, and the civil engineer makes his estimate, and he finds that he can not build the house he wants to for \$7,000, but in store there is \$500 worth of hardware and \$1,000 worth, say, of lumber, which had been appropriated for and purchased, we will say by way of illustration, in previous years, by the funds of some other bureau, but at the end of one year has gone over into the common general stock. There is no law or regulation—or has not been until now—to prevent him from drawing that \$500 worth of hardware and that \$1,000 worth of lumber and putting up the house which thus actually cost \$8,500, but for which \$7,000 was appropriated. That is a sample of what might have been done heretofore, and can be done no longer.

Mr. OLCOTT. Have occurrences of that kind happened frequently?

Admiral ROGERS. Before July 1, 1907, every day, in every yard, and in every Department.

Mr. LOUDENSLAGER. Do you propose hereafter to put an estoppel to the common fund?

Admiral ROGERS. Yes; and a regulation that every single article of stores used shall be paid for out of the appropriation which Congress has given for the purpose.

Mr. LOUDENSLAGER. If they have any left over, what do they do?

Admiral ROGERS. They do not buy any more. It is all bought in the naval supply fund for the use of the entire service, and if the Bureau of Construction or the Bureau of Yards and Docks or the Bureau of Equipment wants lumber the naval supply fund will buy, say, \$20,000 worth and put it in store; and if Construction wants some of it, they draw it out and its appropriation is charged for it. If the Bureau of Ordnance wants some, it is drawn, and an ordnance appropriation is charged for it. In other words, there is nothing that the bureaus use that they do not pay for out of the current appropriation of that year, with the exception as stated of a few of the articles that we call excepted articles, and in that class are boats, anchors, chains, nautical instruments, certain articles and spare parts in steam engineering, etc. This is the reform unanimously accepted by the bureaus.

Mr. BUTLER. Has the Admiral explained why these few articles are excepted?

Admiral ROGERS. These articles were excepted on the amalgamation of common general stock with the naval supply fund because they were peculiar to certain bureaus and not of a general character used by all bureaus. They are, in the main, as follows:

Construction and Repair: Machinery, boats, rafts, furniture, fuel, special blocks, plumbing material of special character for a specific ship, leak stoppers, diving outfits, life buoys.

Equipment: Fuel, anchors and chains, and chain iron, surveying and navigating instruments, electric generating sets and spare parts, machine tools and spare parts, wireless outfits.

Steam Engineering: Fuel, launch engines and boilers, distilling, refrigerating, and auxiliary machinery, steam pumps, machine tools, steam gauges, instruments, steam traps, reducing valves, spare parts for machinery of ships or shops.

Ordnance: Fuel, guns, ammunition, projectiles, torpedoes, special ordnance tools.

Yards and Docks: Fuel.

Their exception was one of the compromises I spoke of.

All of these articles which were in store on July 1 and carried under common general stock will still remain there, and, if they should be issued, it will be without charge to the Bureau appropriation current in the year of issue. Since this list was established most of these articles when bought anew will be purchased under the naval supply fund, some of them, though, still remaining as excepted articles, and ultimately it is believed that they will all pass through the naval supply fund and common general stock thereby cease to exist.

The CHAIRMAN. Just one question in this connection. I want to ask you, Has not your Bureau in the last year taken over from the different bureaus a large amount of material of one kind and another?

Admiral ROGERS. No, sir. Since about 1888, when Mr. Whitney was Secretary of the Navy, when the present system of central stores was established, we have had charge of all the stores for the entire service. We still have that.

The CHAIRMAN. When our committee was at the Portsmouth Navy-Yard in the past year some of the people there said, as appears in the testimony, that the Bureau of Supplies and Accounts had taken over a great deal of material that had been transferred to them and had gone into the naval supply fund.

Admiral ROGERS. What that means is, I presume, this: Orders were issued in the latter part of May, 1907, to all yards, that on and after July 1, 1907, all stores then carried in common general stock, with the exception of certain specific articles which were enumerated, should become subjects of issue under the naval supply fund at a charge against the current appropriation of the bureau drawing these articles, and not practically for nothing, as had previously been the case with stock a year or more old. This stock was not taken over by the Bureau of Supplies and Accounts, as your information seems to indicate, because it was already under the charge of that Bureau, but was transferred from its common general stock account, or Account A, as we call it, to the naval supply fund account, or Account E, which is the name we give it. In addition to the excepted articles referred to, we allowed the bureaus to draw articles which they had made requisitions for for a specific purpose—as, for instance, the building of a house. That undoubtedly is what was referred to at Portsmouth. This transfer was made in two ways. Where the stock was small, by the immediate amalgamation of all of it in the naval supply fund, and, where it was large, by transferring from Account A to Account E when the issue was made; and the result of it was that there will be no longer any issues without charge against the appropriation of the bureau using the stores. Inventories have been taken to put this into operation at Boston, Mare Island, Portsmouth (N. H.), and League Island, and are now under way at New York, Puget Sound, and Norfolk, and all will probably be finished before this Congress adjourns.

The CHAIRMAN. Will you have an appraisal of the stores?

Admiral ROGERS. We are not only taking the inventory, but we are clearing out all the dead and obsolete stock as fast as we can and are getting rid of it by sale. That gives us more storehouse space. This naval supply fund will, I expect, in the course of five years, leave the total stock of the Navy, outside of ammunition and fuel, at about not more than ten to twelve million dollars. It is now over four times that—

Mr. BUTLER. Good gracious—

Admiral ROGERS. And I want to work it off. What we can not work off I want to sell. The space it occupies is more valuable than the material itself. With the ten or twelve million dollars' worth of stock being turned annually in the naval supply fund, I think that sum will be adequate to supply every demand of the service for years, except for ammunition and fuel, and these may some day be made into funds by themselves.

Mr. BUTLER. How long has it been accumulating?

Mr. ROGERS. Since 1850—before the civil war. When I took the inventory at Boston, I was the general storekeeper there and took

the first inventory ever taken in a large yard. I took it in three weeks, and indeed most of it in three days. Absolutely all work, except what was necessary to keep the other departments going, was stopped and the entire working force, clerks and laborers, was turned loose and took a commercial inventory. It was practically finished in three days of eight hours each, and the result of that was that I cleared out over \$400,000 worth of material. Among that material were 8,000 augurs and 4,000 adzes for building wooden ships, and many tons of copper nails for wooden ships, which was melted down.

Mr. BUTLER. And in the estimates to Congress by the different bureaus no allowance was ever made for this accumulated stock?

Admiral ROGERS. No. It might be explained, Mr. Butler, that some of it is the natural accumulation, we might say, looking forward to the economy of the coming year of each bureau. For instance, a bureau has had its work to do within a fiscal year. Of course, many of the job orders will lap over from June into July, when the new fiscal year begins, and then there must be stock on hand for the work. The consequence has been a hoarding of stock at the end of the fiscal year for use in the coming fiscal year. This naval supply fund will obviate all of that. A change of standard may make some stock useless. The naval supply fund is intended to carry just what commercial stock we need.

Mr. BUTLER. And to make report to Congress of the amount of stock on hand?

Admiral ROGERS. Yes. If I live and remain here, and if I do not show a big reduction in that stock in the coming years, I am perfectly willing that somebody else shall take my place.

The CHAIRMAN. When we went around in the past summer we found a great deal of obsolete stock, and we noticed that storehouses were being erected to store a whole lot of material that probably would not be used at all in the construction of ships or anything else.

Admiral ROGERS. I still believe that storehouse No. 34 at Boston—

Mr. BUTLER. In your judgment, Admiral, what does this stock amount to, in dollars and cents, that we have on hand?

Mr. LOUDENSLAGER. He said about twenty million.

Mr. BUTLER. Give it approximately.

Admiral ROGERS. The value of all stores of all kinds on hand June 30, 1907, was \$58,673,841.21; \$32,612,400.90 of this was common general stock, \$24,187,160.55 was increase of the Navy stock, and \$1,874,279.76 was naval supply fund stock.

Mr. LOUDENSLAGER. That is ammunition and all?

Admiral ROGERS. Yes.

Mr. LOUDENSLAGER. About what was ammunition?

Admiral ROGERS. About \$17,000,000, and by ammunition is meant powder, projectiles, fuses, etc., which is shot away in the guns.

Mr. BUTLER. Will that report show what it consists of?

Admiral ROGERS. No.

Mr. BUTLER. Have we any means of knowing what it consists of?

Admiral ROGERS. No, sir; not now; but next year I hope to be able to tell you.

Mr. THOMAS. Who is it that decides what particular material shall be used in a navy-yard? For instance, in going around the navy-

yards and asking what kind of material—say, pig iron—they used in a certain casting and what percentage of scrap they used, I learned they did not use any scrap at all, and in attempting to figure out what the cost of that casting was the commandant would say: "We took what they gave us."

The CHAIRMAN. The bureau that is doing the work gets up the specifications?

Admiral ROGERS. The bureaus get up the specification. The requisitions are made by the head of the yard department that wants to use the material. It goes then, say, to the Chief Constructor of the Navy, and he sends it to the Paymaster-General of the Navy, and the Paymaster-General buys the articles. Last year such iron would have been made under a Construction and Repair requisition probably, and would have been the property of that bureau until the 30th of June following its purchase. We are aiming now to establish a new system. I would like to send to the committee a list of the schedules that are now under advertisement for bids that will be opened this month. We expect the stock to last us until the end of this present fiscal year and longer, and every article in these schedules is bought under the naval supply fund.

Mr. LOUDENSLAGER. You do not decide on the kind of material to be used?

Admiral ROGERS. Generally speaking, no, sir. The only case where I interfere is where I think the price is too high or the amount of material too large, and my decision, under the Secretary of the Navy, is final.

Mr. LOUDENSLAGER. But as to rubber goods, or cotton goods, or steel, or iron, the Department itself decides what it wants?

Admiral ROGERS. No, sir; in the main, my office decides what it wants.

Mr. LOUDENSLAGER. The kind of material, and size, and everything?

Admiral ROGERS. The specifications are all under my bureau. I receive the advice of other bureaus concerning them. I am not an expert, of course, in rubber and steel and oil, but the specifications are in my hands and they can not be changed without my concurrence.

Mr. ROBERTS. Your bureau, if I understand you, Admiral, does not attempt to put into the supply fund certain materials to be drawn out by the bureaus wholly on your own initiative? That is, you consult with the bureaus as to the sort of materials they want, and you provide that kind of material, but your judgment as to the amount controls?

Admiral ROGERS. Yes. When requisitions come from a yard to the Department for approval, they come in such a way that we can get their estimated cost. That is to say, equipment estimates come first through Equipment, and so forth. These requisitions are made in the main under the naval supply fund, but still they come through the bureaus, in order that we may get their advice. If they cut them down, we accept their decision. We supply the specifications unless it is some particular article, for specific use, where special specifications are drawn up. If, in my opinion, the quantity of that article is too large, I cut it down, but I would not change the specification or the quantity without consulting the bureau concerned.

Mr. ROBERTS. In a case where a stock of lumber was desired in a particular yard you would not say, "We will have so many feet of oak lumber in that yard," would you?

Admiral ROGERS. The final decision rests with me, but on the advice of the other bureaus.

Mr. ROBERTS. Suppose a yard does not use oak lumber, but does use spruce or pine?

Admiral ROGERS. Yes.

Mr. ROBERTS. If a yard sends in a requisition for a million feet of pine, could you say, "You do not need but half a million?"

Admiral ROGERS. In that case I would consult the Chief of the Bureau of Construction, that Bureau would use the most pine, and I would tell him I thought a million was too much. If he convinced me that he was right, I would let it go through.

Mr. THOMAS. The commandant of a navy-yard has got to use the material that is given him?

Admiral ROGERS. No, sir; he sends a request for material to the Bureau of Supplies and Accounts.

Mr. THOMAS. The commandant I referred to could not furnish us with his figures of cost. The figures which this commandant in particular furnished to us—the commandant I referred to a while ago—were ridiculous, as to the cost of gray iron castings particularly.

Admiral ROGERS. In many cases they do not know the value of the stock that goes into a manufactured article. When I was at Boston Navy-Yard I talked with every head of department there as to the value of turning his scrap into the store, giving it a valuation, and drawing out the same as he would draw out bar iron, or pig iron, or anything else. There were over 25 tons of scrap in the possession of the various manufacturing departments when I took possession of it, melted it into ingots and put it in stock and carried it thereafter at appraised values as metals, and I persuaded the heads of departments that there could not be any more useless method of carrying on their business than to use scrap—brass scrap, say—which they had at no charge, and employ it in the manufacture of any product, because if anybody asked them what was the cost of making that article they could not tell because it was made up of scrap brass not on charge. They then turned in all the scrap into store, and when they wanted to use it it was drawn out and debited against their account.

The CHAIRMAN. Gentlemen, we will now take up the estimates on page 146, Bureau of Supplies and Accounts. "Provisions, Navy: For provisions and commuted rations for the seamen and marines, which commuted may be paid to caterers of messes, in case of death or desertion, upon orders of the commanding officers;" the language seems to be the same with that of last year except "for the purchase of United States Army emergency rations." You purchased 100,000 last year, did you not?

Admiral ROGERS. Yes. All I wish now is the general authority to keep the stock in condition.

The CHAIRMAN. Have you used any of that in the past year?

Admiral ROGERS. They have all been distributed, sir, to the torpedo boats and ships, and there are not quite enough; but I have no present intention of buying any more, even after the 1st of July. But

if any of them are used or lost I would like to have authority to renew them. I have made a note here concerning that item, and this authority is needed to continue the purchase as required by service conditions. If you give me the authority I would say fifteen or twenty thousand would be the limit, but it is not necessary to define that. -I do not ask any additional sum for it.

Mr. PADGETT. Either last year or the year before last one of the officers before us stated that these army emergency rations were never used, and were not expected for use.

Admiral ROGERS. Well, sir, you made that same objection when I urged them last year. You will remember that I stated that I did not think he had stated they were of no use—it was Paymaster-General Harris—and I explained then that they cost 37 cents apiece, I think it was. The Army has supplied 100,000 at 28 cents, which was lower than they had ever been before, and they are now on the battle ships and torpedo boats.

Mr. PADGETT. How many did you buy last year?

Admiral ROGERS. One hundred thousand. Ninety-four thousand are afloat on ships. Some have been stored at Cavite, some at League Island.

Mr. PADGETT. How long will they be of any service? Will they not deteriorate?

Admiral ROGERS. There is no reason, sir, that they should not last for one hundred years, if they have been properly sealed in the tin.

Mr. PADGETT. So that when you buy them once they are good forever?

Admiral ROGERS. Yes, sir.

Mr. PADGETT. How many do you contemplate buying additional to these now?

Admiral ROGERS. None, sir. But in case fifteen or twenty thousand are needed, I would like the special authority to buy them. That is absolutely necessary. I can not buy them unless the words go into the law.

Mr. PADGETT. But you do not contemplate buying any?

Admiral ROGERS. No, sir; I do not contemplate buying any more at all, but need the authority in case I must.

The CHAIRMAN. On page 148 is the provision, "That such stores as the Secretary of the Navy may designate may be procured and sold to officers and enlisted men of the Navy and Marine Corps, also to civilian employees at naval stations beyond the continental limits of the United States and in Alaska, under such regulations as the Secretary of the Navy may prescribe." Please explain that.

Admiral ROGERS. If you will turn to page 147, about two-thirds down the page, you will find that Pay Department stores may be sold to civilian employees. This is for the purpose of enabling us to establish stores of that same character at any yard, exactly as the Army has commissary stores.

Mr. ROBERTS. You have added officers and enlisted men in addition to civilians.

Admiral ROGERS. The regulation now gives the right to sell to ships' messes. The Comptroller has decided that we can only sell constituent parts of the ration, and this is to enable the Navy to

establish commissary stores, just as the Army has, though not so extensive as theirs, at our navy-yards. I do not ask any additional sum for it, or any additional clerk hire. If it is necessary and some small additional amount is needed hereafter, I will ask for it.

The CHAIRMAN. Why would not that old language be right if you inserted the words "it may be sold to officers and enlisted men?"

Admiral ROGERS. This new language will permit anything that the Secretary designates to be sold.

Mr. ROBERTS. You can supply your stores with drugs or crockery or anything else under this new regulation. Under the old you can simply supply the ration?

Admiral ROGERS. Yes; but I have no idea of establishing as elaborate a system as the Army has; but I would like authority to provide for sale to our officers and men provisions and articles of everyday household use. At present our main desire is to legalize the sale of provisions in such a way that there can be no possible question about it. There is a very great question now, as, except at Cavite, Guam, and Samoa, we can only buy provisions where there is a ship's mess, and such sales are allowed in only two stations now.

Mr. ROBERTS. I want to ask the Admiral why he has not the language in here reappropriating the balance for 1907?

Admiral ROGERS. I have not put that language in, sir, because the reappropriation last year was in consequence of some mistake made when the bill was reported. The amount reported was about \$721,000 less than I had shown to be necessary, and rather than change that the chairman asked me if we could not reappropriate the unused balance, and it was done.

The CHAIRMAN. Have you any unexpended balance at the present time under this appropriation?

Admiral ROGERS. Yes. The unexpended balance of 1906, estimated, but very close, is \$660,000. That has been reappropriated for 1907. The estimated balance for 1907 is \$13,000.

The CHAIRMAN. I see the total here is practically the same as last year.

Mr. ROBERTS. It is \$21,000 increase.

Admiral ROGERS. This total contains, sir, a provision for feeding 3,000 additional men. That is a matter you must determine.

The CHAIRMAN. That is included in this?

Admiral ROGERS. Yes.

The CHAIRMAN. If we allow 3,000 additional men, they are provided for in that?

Admiral ROGERS. Yes. I have made up a statement here for from 1,000 to 5,000 additional men; that is, for the present strength of the Navy exactly as it is, and then the sums you can add according to the men you will allow, from 1,000 to 5,000.

Mr. LOUDENSLAGER. How much do you ask for per man?

Admiral ROGERS. Thirty-five cents a day.

STATEMENT A.—*Showing amount required under appropriation "Provisions Navy, 1909," based on present enlisted force of the Navy; also on increases of 1,000, 1,500, 2,000, 3,000, 4,000, and 5,000 men.*

38,500 present strength.

2,717 marines afloat (rationed by Navy).

41,217 total, at 35 cents per ration, for 365 days	\$5,265,471.75
1,956 officers, whose rations are commuted at 30 cents per ration, for 365 days	214,182.00
Labor in general storehouses (the amount allotted for 1908 is \$681,130)	685,000.00
	6,164,653.75

The rate of increase in the appropriation for each thousand men authorized will be \$127.750. Therefore—

If 1,000 additional men should be authorized, the above amount should be increased to	6,292,403.75
If 1,500 additional men	6,356,278.75
If 2,000 additional men	6,420,153.75
If 3,000 additional men	6,547,903.75
If 4,000 additional men	6,675,653.75
If 5,000 additional men	6,803,403.75

The CHAIRMAN. The next item is "Contingent, Bureau of Supplies and Accounts." I notice you have left out the language here, "expressage," and "postage, telegrams, telephones."

Admiral ROGERS. That is part of the same scheme, sir—

The CHAIRMAN. That you referred to earlier?

Admiral ROGERS. Yes.

Mr. ROBERTS. I see on page 149 that it is \$170,000, when on page 150 there is shown a reduction of \$5,000.

The CHAIRMAN. There is a reappropriation of \$10,000.

Mr. ROBERTS. That makes a total of \$175,000.

The CHAIRMAN. You have left out these words in order to carry out your ideas as explained heretofore?

Admiral ROGERS. Yes, sir. I think there is nothing new here, more than the statement you ask for annually.

The CHAIRMAN. The next is "Freight, Bureau of Supplies and Accounts: All freights and express charges," etc. Why don't you use express?

Admiral ROGERS. The express paid out of eleven different appropriations amounts to \$11,384, and I simply propose to take the word "express" out of these appropriations and add the word "express" to the appropriation "Freight" and not increase that appropriation. That is for all bureaus. I will leave you the lists, so that that deduction can be made from the various bureaus.

(Submits following statement:)

Extract from Postmaster-General's letter of September 17, 1907, to the Secretary of the Navy.

CONTINGENT SUPPLIES AND ACCOUNTS, 1909.

The amount estimated for 1909 under this appropriation, \$170,000, is \$5,000 less than that appropriated for the fiscal year 1908.

This amount may be further reduced to \$160,000 in case all express charges are included under the freight appropriation and telephones, telegrams, postage, and ice under "Pay, miscellaneous."

Under this appropriation for 1909, the words "postage, telegrams, telephones," and "ice," appearing in the appropriation for 1908, are omitted, for the reason that the proposed change in the appropriation "Pay, miscellaneous," hereinafter shown lodges all charges of this character thereunder.

Statement showing approximately the amounts which will be paid by the various bureaus during the fiscal year 1907 for express charges.

Bureau.	Appropriation.	Amount.
Yards and Docks.....	Maintenance, Yards and Docks.....	\$54.37
Equipment.....	Contingent, Equipment.....	\$2,653.45
Do.....	Ocean and lake surveys.....	401.87
		3,055.32
Navigation.....	Gunnery exercises.....	1,958.96
Do.....	Contingent, Navigation.....	1,075.14
		3,034.10
Ordnance.....	Contingent, Ordnance.....	2,572.30
Construction and Repair.....	Construction and Repair.....	503.99
Steam Engineering.....	Steam machinery.....	503.57
Supplies and Accounts.....	Contingent, Supplies and Accounts.....	1,345.99
Medicine and Surgery.....	Contingent, Medicine and Surgery.....	177.63
Secretary's office.....	Pay, miscellaneous.....	72.66
Total estimated amount paid for express charges during fiscal year 1907.....		11,384.92

The CHAIRMAN. Can we reduce this appropriation \$5,000?

Admiral ROGERS. Contingent? No, sir.

The CHAIRMAN. Have you an unexpended balance?

Admiral ROGERS. In contingent, 1907, yes; \$3,383.62. This statement shows the condition of "Freight."

(Submits statement as follows):

Extract from Paymaster-General's letter of September 17, 1907, to the Secretary of the Navy.

FREIGHT, SUPPLIES, AND ACCOUNTS, 1909.

The Bureau has added the words "and express," so that the appropriation will be broad enough to cover all transportation charges.

As the express charges of all bureaus will not exceed from \$10,000 to \$15,000 a year, it is the opinion of the bureau that the \$500,000 asked for, which amount is the same as that appropriated for the fiscal year 1908, will be sufficient to cover both the freight and express charges for the fiscal year 1909.

FREIGHT, SUPPLIES, AND ACCOUNTS, 1907.

It is estimated that the expenditures under this appropriation will exhaust the \$400,000 appropriated, and that it may be necessary to submit a deficiency appropriation for a small amount.

FREIGHT, SUPPLIES, AND ACCOUNTS, 1906.

Appropriation for the fiscal year 1906, including deficiency of \$75,000.. \$475,000
Unexpended balance (estimated)..... 45,000

Mr. LOUDENSLAGER. What was the balance for 1907?

Admiral ROGERS. It is not known, sir. It may be necessary to submit a deficiency estimate for a small amount. Four hundred thousand dollars were appropriated, and last Congress granted an additional \$100,000 for this year, which, I think, may be ample.

The CHAIRMAN. The next is "Civil establishment, Bureau of Supplies and Accounts: Navy-Yard, Portsmouth, N. H.," on pages 150 and 151. There is no change there?

Admiral ROGERS. No change.

The CHAIRMAN. Coming to Boston, you ask an increase in the pay of one bookkeeper to \$1,200.

Admiral ROGERS. I have asked for an increase of pay of a bookkeeper from \$1,200 to \$1,400 per annum in Boston, New York, Washington, Norfolk, Puget Sound, League Island, and Mare Island. I will submit in my hearing, sir, my reasons for each of those changes which have been recommended.

Mr. PADGETT. Just before that, however, is the proposed change from \$1,017.25 to \$1,200, one bookkeeper.

Admiral ROGERS. Yes, sir. Boston is a little different from other yards. It is one bookkeeper at \$1,200 and one at \$1,017.25. I propose to make the second bookkeeper a \$1,200 man, so as to bring him on a par with other yards. Mr. Roberts will remember this was urged last year, but too late to be incorporated in the bill.

Mr. PADGETT. Then you propose to change that from \$1,200 to \$1,400?

Admiral ROGERS. Yes. The first bookkeeper from \$1,200 to \$1,400, leaving the second bookkeeper, now at \$1,017.25 a year, at \$1,200. Boston is the only yard in the country that has no bill clerk at a thousand dollars, and why it should have been left out I do not know. We have a bill clerk there now who is paid out of "Provisions, Navy."

Mr. OLCOTT. Admiral, what does the word "writer" mean in this appropriation bill—"one writer?"

Admiral ROGERS. Nothing, sir. The designation has been in the appropriation bill for many years. He does general clerical work.

Mr. OLCOTT. Is he a typewriter?

Admiral ROGERS. No, sir. The language was in the appropriation bill before the typewriting machines were invented.

The CHAIRMAN. In New York I see one bookkeeper at \$1,500. Is that an extra man?

Admiral ROGERS. No, sir. It is an extra place. I said this to the Secretary when I recommended that: "The principal bookkeeper at this yard is an exceptional clerk, and it is vital to the Government interests to retain him—hence this estimate." I should like that very much to be done.

Mr. LOUDENSLAGER. Where does he get his pay from now?

Admiral ROGERS. Out of "Provisions, Navy."

The man now acting as chief bookkeeper is paid from "Provisions" at \$4.24 per diem, equal to \$1,327.12 a year.

Mr. LOUDENSLAGER. This is another new office?

Admiral ROGERS. Yes, sir. I took a bookkeeper out at \$1,200. It practically establishes the office of chief bookkeeper and cuts out one of the bookkeepers at \$1,200.

Mr. BUTLER. Your estimate is deducted accordingly?

Admiral ROGERS. It will be, because there is no limit to that sum; I mean payments under "Provisions."

The CHAIRMAN. That is, you will not employ another man?

Admiral ROGERS. Oh, no. If you allow, for instance, the bill clerk at Boston, there is a man there whose pay is \$3.04 a day, and I will cut down the allotment of "Provisions, Navy," at the Boston Navy-Yard \$950.

The CHAIRMAN. The only difference, as I understand, is that this will put him on the permanent roll, whereas now you can employ him or not as you see fit!

Admiral ROGERS. Not exactly. He is now paid a per diem wage. If this is allowed he will be at an annual salary and receive an increase of \$183, annually.

Mr. LOUDENSLAGER. In New York you had three bookkeepers. Now you make four. They were at \$1,200. Now you have changed it and made one of them \$1,500, another at \$1,400, and the other two \$1,200 each. You have made a new office and increased the pay of two of them.

Admiral ROGERS. On page 152, sir, the original copy read: "Three bookkeepers, \$1,200 each." I have provided still three bookkeepers, one a chief bookkeeper, at \$1,500, one a bookkeeper, at \$1,400, leaving one at \$1,200.

Mr. LOUDENSLAGER. No, two.

Admiral ROGERS. I apologize; that is right.

Mr. ROBERTS. Now, Admiral, as to these men that you are employing and paying out of "Provisions, Navy," was not that matter gone into by the Auditor last year, and wasn't it held that these clerks should not be paid out of that fund, and did not the Secretary come up here and get permission for that process to be continued for a year, giving these men a chance to get put under a specific appropriation?

Admiral ROGERS. What occurred is this: If you will turn to any one of these civil establishments, say page 153, you will see that the final words at the bottom of the page were, "And no other fund appropriated by this act shall be used in payment for such service." That has been in the appropriation act for over twenty-one years.

Mr. ROBERTS. Yes; on all appropriations, for every bureau—

Admiral ROGERS. Except the Bureau of Equipment; why, I do not know. Admiral Bradford, so the story goes, persuaded you to take it out.

Mr. ROBERTS. The effect of that is that in all these other bureaus, as to men doing clerical work and paid out of a general fund, the Auditor held it illegal.

Admiral ROGERS. The Auditor threatened to disallow it, it was so stated, and I went to the Secretary of the Navy and informed him that after the 1st of July the Auditor was going to hold that a special laborer or clerk could not be employed in the navy-yards, and he based his attitude upon these words I have just read. That has been upon the statute books twenty-one years, and it was only discovered last winter.

Mr. ROBERTS. I understand, but was there not some legislation by the Appropriations Committee to cure that thing?

Admiral ROGERS. I asked the Secretary to ask the Appropriations Committee to continue that up to the 30th of June. The Appropriations Committee did, and directed a report to be made as to all clerks paid out of lump appropriations.

Mr. ROBERTS. The understanding was that that practice should be changed, and these men in the different bureaus, being paid out of lump appropriations, should be put under specifically.

Admiral ROGERS. I do not think that was the understanding. You will remember it was at the close of the short session.

Mr. ROBERTS. That was my understanding in the talk I had with the Secretary of the Navy. He was going to have a system devised to put these men under specifically.

Admiral ROGERS. I do not think so. I am not aware of any plan being submitted to accomplish this.

Mr. ROBERTS. Whether that is the correct understanding or not, don't you think it is a better policy to put them under specifically than to continue them out of lump appropriations where there is no control over it?

Admiral ROGERS. No, sir. I think the wisest thing this committee can do is to put at the disposition of the Secretary a lump sum of money and let him distribute that as he pleases, limiting the highest rate to be paid.

Mr. ROBERTS. What I mean is, when you are making an appropriation for a bureau, do you think it wise that the Secretary should dip into that for clerical help unless it is specified that a portion of it should be available for clerical help?

Admiral ROGERS. I do not see any infraction of the law in that.

Mr. ROBERTS. What did the Auditor mean when he threatened to disallow the pay of these men?

Admiral ROGERS. He meant that, under the provisions of law, the lump appropriation permits only the employment of laborers in the strict definition of that word, and that the employment of clerks and calling them special laborers was not warranted by law, though it has been done for many years, and with the full knowledge of Congress, so far as I am informed, as I think the testimony before the Committee on Appropriations, while Mr. Moody was Secretary of the Navy, will show. I have been informed that the House Committee on Appropriations investigated this matter some years since, as I have just stated, and concluded that, under the conditions existing, it had better let the matter alone, as any changes would result in an increased cost, and they seemed to be convinced that the matter was then being economically and judiciously administered.

Mr. ROBERTS. If I am not mistaken, Mr. Tawney, of the Appropriation Committee, has had that language substantially put onto substantially all the departmental appropriations in our bills. It was put in on the floor, and it was done for the purpose, in his mind, of informing Congress exactly what we had in the way of clerks, and what they are getting.

Mr. LOUDENSLAGER. I think it was Mr. Tawney's idea that part of an appropriation for building new ships should not be used for the employment of clerks, and that the appropriation, for example, for "Increase of the Navy" should be used for that purpose alone, and should not include the salaries or wages of employees.

Mr. ROBERTS. That is what that language is put in here to stop. It is to stop that thing.

The CHAIRMAN. How many clerks do you employ under the general appropriation for "Provisions, Navy?"

Admiral ROGERS. Two hundred and eighty-eight and 35, paid partly from "Provisions" and partly from other appropriations.

Mr. LOUDENSLAGER. How many men are employed by the different bureaus at the different stations for which no specific appropriation is made for the payment of their wages where they are paid out of general funds?

Admiral ROGERS. The Secretary of the Navy has reported the number. It is before Congress. Congress directed that report to be made.

Mr. LOUDENSLAGER. It is about 2,500.

Admiral ROGERS. The report of the Secretary of the Navy states 1,929 in all.

Mr. ROBERTS. There is no limit to the number of men that can be so employed, except the appropriation, is there?

Admiral ROGERS. None except the appropriation.

Mr. THOMAS. Do they abuse that privilege?

Admiral ROGERS. They do not. Take, for instance, "Provisions, Navy," a lump appropriation. I have shown in my report, page 8, that we have in United States yards 199 clerks paid \$2 or more a day. The highest pay is \$4.24, at which two are paid. The average pay of these 200 clerks is \$887 a year, which is not going to bankrupt the United States.

Mr. ROBERTS. It is a question of knowledge up here on the part of those who appropriate this money, where it is going.

Admiral ROGERS. They have every right to know.

Mr. ROBERTS. We do not know it now under the present system. We do not know how many clerks a bureau has got.

Mr. DAWSON. How are those clerks selected that are paid in this way?

Admiral ROGERS. Entirely under the Civil Service Commission.

Mr. ROBERTS. If a clerk wants to get an increase of pay, one of these special laborers, if some one in a higher rank drops out and he wants a promotion, I am told by the Department that there is no such provision there. I am told there is no vacancy in the clerical force of that office, and they will not promote him because there is no vacancy in the clerical force there. They say he is a special laborer. That is one of the troubles of that system.

Admiral ROGERS. When a man drops out there must be a vacancy.

Mr. ROBERTS. No; they do not hold him as a clerk in that Department. He is a special laborer there. That is what knocks me silly. They put another man right in.

The CHAIRMAN. Where are these clerks?

Admiral ROGERS. Most of them are in New York.

The CHAIRMAN. Do you from time to time increase the clerical force as the business demands?

Admiral ROGERS. I am trying my best to decrease it, and we are accomplishing a great deal in New York. The expenses in New York this year are about \$10,000 more than they were last year, but I hope in the coming year they will be about \$10,000 less. We have made many changes there which will result in economy. The reason for the increase this year is the extra work on the inventory.

Mr. LOUDENSLAGER. Can you tell me why you increase the book-keeper there 50 per cent? How are we going to cut it down to less if you increase it?

Admiral ROGERS. Increase it in the total, I meant, of course. The proposed increase is not 50 per cent; it is only \$173 a year.

Mr. LOUDENSLAGER. It seems to me you ought to have a good reason for putting in new clerks.

Admiral ROGERS. I can give you the reasons.

Mr. OLCOTT. It is not only in New York; it is in other navy-yards.

Admiral ROGERS. I think, sir, that the one at New York is the only absolute increase that I have recommended, with the exception of Washington Navy-Yard. As their work is increasing there, I have asked for another bookkeeper.

The CHAIRMAN. Let us pass on, gentlemen, to page 153. "One engine tender, at \$1,440; one engine tender, at \$1,200." What about those? Have you those at the present time?

Admiral ROGERS. Yes, sir. They are paid under "Provisions, Navy." The reason we want to put them in under "Civil establishment" is this: Those men are employed on the tugs. A decision was made on the subject of employing eight hours' labor in the navy-yards, and the Secretary has interpreted it as absolutely forbidding any overtime work except under the most unusual circumstances, and the consequence is that these men can not be employed overtime; they can not finish their run on the tug. If we put them on the civil establishment, it will enable us to use them as every business house in the country uses such employees, in accordance with every reasonable requirement. I got information as to what is being paid outside, and I would much prefer that that item should remain in the bill. It will cost that much less in the expenditure of the appropriation of "Provisions."

The CHAIRMAN. We will pass on to Mare Island. You have spoken of that already in a general way as to these bookkeepers; also Norfolk.

Admiral ROGERS. As to Norfolk, I want to straighten out a discrepancy. I have recommended that one receiving clerk have his pay increased from \$942 to \$1,000. There are now two receiving clerks, at \$942 each. At all other yards this place receives \$1,000 per annum. The increase is recommended by the general storekeeper, approved by the commandant, and would doubtless have received Secretary Bonaparte's approval, but the Paymaster-General was then too new in his office to explain the matter. This Secretary directed him to file a memorandum, which was done, but never acted on. This was last year.

The CHAIRMAN. Now, Cavite, Philippine Islands. You ask for an increase of one shipping and bill clerk from \$1,200 to \$1,400, an increase of \$200.

Admiral ROGERS. That is in consequence of the difficulty of keeping men in that remote station, sir, and the increased cost of living there. It is approved by the Department.

The CHAIRMAN. Now, as to the lumber inspectors.

Admiral ROGERS. They have been before you two years. This is the third year.

The CHAIRMAN. The next is navy-yard, Puget Sound; then naval training station, Great Lakes, in general storehouse, one clerk at \$1,000.

Admiral ROGERS. That is necessary. That station is growing there, and we ought to have it.

The CHAIRMAN. The next is naval station, Guantanamo, Cuba; one stenographer at \$4 per diem.

Admiral ROGERS. That is necessary.

The CHAIRMAN. What about this additional store man at Guantanamo, on page 159?

Admiral ROGERS. He is now employed there at the same rate—\$3.04 per diem.

The CHAIRMAN. The next is Pensacola. Is that the same?

Admiral ROGERS. Yes, sir. These were both recommended in 1906.

Mr. ROBERTS. Why don't you make that bookkeeper at \$1,500? All the other bookkeepers are at that amount.

Admiral ROGERS. Because this is not important enough. At the naval station on the Great Lakes he will be a bookkeeper. There are only seven stations where I have recommended the raise for bookkeepers from \$1,200 to \$1,400, and one only at \$1,500.

Mr. ROBERTS. I noticed at the naval training station you do not call him a bookkeeper, but you call him a clerk. Later you will want a bookkeeper at the naval station, perhaps several of them.

Admiral ROGERS. There are men acting as bookkeepers there, but they are not so called.

Mr. OLCOTT. Is that the only station where there is a civil employee, the naval station of the Great Lakes?

Admiral ROGERS. That is the only one under my bureau. We have no clerks there provided by the civil establishment.

Mr. ROBERTS. Mr. Olcott thought there was only one civil employee, and that that was at the Great Lakes. The commandant there has some civil employees?

Admiral ROGERS. Yes; he may have.

Mr. PADGETT. I do not see Charleston mentioned here for anything. Have you anything at Charleston?

Admiral ROGERS. There are no present needs, sir, that I was aware of, of anything at Charleston.

Mr. PADGETT. I was asking if there was anything in your Bureau at that place.

Admiral ROGERS. Yes, sir; we have an office there. The clerks are paid from "Provisions, Navy." There is a contingent item on page 160; that gives all the new recommendations.

The CHAIRMAN. Now, Paymaster-General, are there some other matters that you desire to speak to the committee on relative to the business of your Bureau?

Admiral ROGERS. Yes, sir; there are one or two matters.

The CHAIRMAN. I wish you would speak of them now.

Admiral ROGERS. I would like to call attention to the punctuation of this bill, on pages 6 and 7, which should be changed. In the second line from the bottom, page 6, there should be a semicolon, and on page 7 those two semicolons on the second line should be commas. On page 144 there is a similar case. Those are of considerable importance with the Comptroller. There should be a semicolon after the words "Medical School," on line 5. That would read, "For minor repairs on buildings and grounds of the United States Naval Medical School." Then the next one would be "For the care, maintenance, and treatment of the insane of the Navy and Marine Corps on the Pacific coast, and all other necessary contingent expenses."

The CHAIRMAN. Now you may speak of these other matters that you have in mind.

Admiral ROGERS. Yes, sir; one is public buildings.

The CHAIRMAN. Are you asking anything for public buildings?

Admiral ROGERS. Yes; I have asked for a large sum and have cut it down to a small sum, but I have a few items for storehouses and improvements which I want the committee to consider.

The CHAIRMAN. They are under "Yards and Docks?"

Admiral ROGERS. Yes; I would like to strongly favor the erection of a storehouse for ordnance stores at the navy-yard at Mare Island, for reasons I will not burden you with, because it has been gone over before and will be again; but the ordnance stores are in bad condition, some of them—valuable stores—stored in a shed. Two new elevators are needed for Nos. 69 and 70, each of which will cost \$2,000.

The next one is one in which Mr. Roberts is interested and is familiar with. It is for an oil house at the Boston Navy-Yard. That was appropriated for in the bill for 1906. I went to the Boston Navy-Yard in charge of the general storehouse in August, 1905, but it was too late to get the plans drawn, and we found we could not get ready before April, 1906; and in the meantime it was seen that it was utterly impossible to build it for \$15,000, the amount appropriated, so that, after consultation with the civil engineer and in trying to cut our cloth to suit our money, the plan was modified and a building designed to cost \$15,000, which I thought was not worth spending the money on. As a consequence, I came to the conclusion that if Congress did not appropriate a sufficient amount of money we had better let it go. I want you to make that \$25,000, so as to build a storehouse that will store everything combustible, rather than waste \$15,000. That is my position.

Mr. ROBERTS. How about the general storekeeper's storehouse?

Admiral ROGERS. It was cut out.

Mr. ROBERTS. What do you think about it?

Admiral ROGERS. I think most decidedly it ought to be done, but I think there are other things more important. If the committee is going to limit me, I fear that Boston must wait its turn.

Mr. ROBERTS. It was impressed upon us when we were there last year that it was in a dangerous condition.

Admiral ROGERS. It is very dangerous. The bottom paints, alcohol, and oils are stored in building No. 34. The building of a new oil house will relieve that situation somewhat.

Mr. ROBERTS. Where are the paints stored?

Admiral ROGERS. They are in the next building, No. 33.

Mr. ROBERTS. It would take the oil out of that building?

Admiral ROGERS. Yes, all combustibles out of 33 and 34 which contain perhaps three or four hundred thousand dollars worth of stores or more, and are worth \$100,000 or more each.

Mr. ROBERTS. It would remove a big source of danger?

Admiral ROGERS. Yes; if a fire started in that building it would be hopeless.

The CHAIRMAN. Is there anything else you desire to say?

Admiral ROGERS. I hope that the committee will authorize \$6,000 for the purpose of storing lime at Washington Navy-Yard. We also ask for a storehouse at Portsmouth, N. H., for combustible material, and one at League Island Navy-Yard, also for alteration of building No. 4 at the latter yard. That has been turned over to the Bureau of Supplies and Accounts. The estimate for the alterations in that building is \$12,000.

Mr. ROBERTS. Is that all it will cost?

Admiral ROGERS. Yes. It is the estimate.

Mr. ROBERTS. It will cost less?

Admiral ROGERS. Yes. There is a building very much needed at Norfolk. The proposition is to put up a building for the use of a large storehouse, the erection of which will take three years at a cost of \$150,000 a year; \$25,000 is also much needed for improvements to building No. 16.

At Puget Sound we estimate for an oil house, \$30,000. There is none there.

Mr. ROBERTS. Is \$40,000 for the oil house at Norfolk?

Admiral ROGERS. Yes; and an oil house at Puget Sound to cost \$30,000.

Mr. ROBERTS. Would it be built of the same material?

Admiral ROGERS. Yes, of course; but the one at Norfolk would be larger.

Mr. ROBERTS. Is the difference in cost because of the size of the building or on account of the material?

Admiral ROGERS. It is on account of the size of the building. A storehouse that would do for Puget Sound would not do for Norfolk.

There are two things I am much interested in in consequence of my work. One is \$6,000 that is asked for the extension of the laboratory at New York. It is probably the most necessary thing at New York. If I should only get \$6,000 that is the one I would take; it is the most important.

Mr. HOBSON. Do you think that is enough—\$6,000?

Admiral ROGERS. That is all that is asked for.

Mr. HOBSON. Do you not think it would be a makeshift? If you take one down you want to put up a better one.

Admiral ROGERS. I do not think it would be a makeshift. It will last for many years. It is an extension of the present building.

The CHAIRMAN. Is there something else that you desire to speak of?

Admiral ROGERS. Yes; during the present year one of the things in which I have been directly interested in and to which I have directed the attention of the Bureau of Navigation is the matter of cooks on our ships. Congress has furnished us the finest ration in the world. No other organization has any such ration as has our Navy. But if you have the best and most bountiful supplies and you have not good cooks you can not do anything with them. The Bureau of Navigation has asked for a building in which to train cooks at the Training Station, Newport, and of course the building will be used at the same time for the cooking of the food and baking. The estimate is \$25,000, and I think it is one of the most important things presented here. A pay officer has been sent there who has been working along in a limited space, and I would like very much if Congress can give us this. The local estimate for this building was \$60,000. It has been cut to \$25,000.

Mr. ROBERTS. Is there a good deal of complaint in the Navy about the cooking?

Admiral ROGERS. There is a good deal of complaint.

Mr. ROBERTS. There is a good deal of complaint in the Army.

Mr. HOBSON. It is not limited to the Army.

Admiral ROGERS. No; that is one thing they complain of in the Navy at times—indifferent cooks. There are times when our rations are ruined. Our ration costs 35 cents now. The members of the committee doubted last year if that was enough, but I think it is too much. Last year I asked and received 35 cents. I think I can get it for less ultimately, but not yet—not while provisions are so high.

Mr. ROBERTS. The commutation is 30 cents.

Admiral ROGERS. Yes, in money. My estimate is 35 cents. To be exact, the cost was 33.87 cents, but that was only for six months. I was afraid to trust such an estimate. I may be able to reduce that 1 cent next year. Now, 1 cent is not very much, but it means \$50,000 a year.

Mr. LILLEY. I think that one of the best things for which we can appropriate money is to get good food, and, secondly, to have it well cooked.

Mr. ROBERTS. You would increase the number of cooks?

Admiral ROGERS. Yes, the number of good cooks.

Mr. LAMAR. From what source do you now get cooks?

Admiral ROGERS. They are enlisted without adequate training. They should come through the cooking school.

Mr. LAMAR. If a man should apply to be enlisted in the Navy as a cook, by reason of the scarcity of cooks, would you take him if he had no record?

Admiral ROGERS. We might do so if he passes an examination before the recruiting officer. There is nothing to prevent the recruiting officer from enlisting such a man.

Mr. LAMAR. How many have you?

Admiral ROGERS. I can not tell you that. A battle ship would have 11 or 12 in the galley. That means all kinds of cooking, the preparation and the peeling of potatoes and every sort of galley work. It has reference only to the crew. There are 9 cooks to about 725 men.

Mr. LAMAR. How many cooks are there in the entire service?

Admiral ROGERS. Perhaps 600.

Mr. ROBERTS. You spoke a moment ago of their going through the cooking school. Have you opened up that department in the service?

Admiral ROGERS. Only as a start.

Mr. ROBERTS. You have started that but you have no facilities?

Admiral ROGERS. No, sir; except as we get them from our existing organization, such as we have. We do not propose to fix up this building with elaborate arrangements, such as white procelain bake ovens, but we are simply going to put in a ship's galley and ovens, such as are used afloat.

Mr. ROBERTS. Do you know how many there are now?

Admiral ROGERS. About 30, I believe.

Mr. ROBERTS. This would give you 30 as a whole?

Admiral ROGERS. Yes. This is the first time that that has been done. I propose at some future time, if nothing happens, to come before this committee with a proposition to do all of our baking ourselves in the navy-yards of the country. I want men for that purpose.

Mr. ROBERTS. If you have no men available I suppose that you will instruct them.

Admiral ROGERS. Yes.

Mr. HOBSON. I want to bear witness to that from the standpoint of economy. The waste on board of a ship is something enormous. After they peel a potato there is only one-third of it left.

Admiral ROGERS. We peel them now by machinery. I think the saving ultimately would amount to thousands of dollars a year.

Mr. ROBERTS. What is the system of instruction? Is it a question of hygiene or plain cooking?

Admiral ROGERS. It is the purely practical.

I understand that the Secretary of the Navy has sent to the Naval Committee of the Senate and House a joint resolution that will provide for the turning over to the general stock of the Navy the ammunition and projectiles which have been bought under the fund for the increase of the Navy and which can not be used. I want to state to the committee that that matter was in the last bill and was approved by the committee, but went out in the House on a point of order because it was not properly explained on the floor. Some one stated that the Secretary could do that now without specific authority. That is a mistake. The Secretary can not do it. The old policy was to buy all the supplies for new ships from the appropriation, "Increase of the Navy." We now buy only equipage, such as furniture and articles of that kind used on the ships—articles that can only be expended by survey. The supplies are bought out of the current appropriation. These can be expended at the discretion of the officer in whose charge they are and within allowances.

Under the old system we have accumulated a large quantity of powder, both brown and smokeless, and projectiles to be used in the new ships. We have not got enough new ships. We can not, by law, use these for anything but new ships, coming, as it does, under the head of "Increase of the Navy." Congress knew nothing about that except that it was to be used in the new ships. We have no means of using such a large quantity, and therefore it has accumulated and can not be employed for general service uses.

We want simply to transfer on the books of the Navy all the ammunition now carried under "Increase of the Navy." That does not mean that we have the right to spend any money. It is simply a transfer to a new account—a matter of bookkeeping—a transfer of stores all paid for from one stock account to another.

Mr. ROBERTS. You want to use it in future for new ships?

Admiral ROGERS. No, we have not enough new ships. We want to use it on all ships, old as well as new.

Mr. PADGETT. Last year we appropriated \$2,000,000 and the year before \$2,000,000 for the purchase of reserve ammunition. Could not this be used in reserve ammunition?

Admiral ROGERS. I would rather you would ask the Chief of Ordnance about that. That is a matter for expert testimony.

Mr. PADGETT. If we have spent millions and millions of dollars for this ammunition for the new ships, why can not it be used? What is the necessity for purchasing more under the head of reserve ammunition?

Admiral ROGERS. You will have to ask that of Admiral Mason. I really do not know.

Mr. HOBSON. This ammunition is fast deteriorating, and each type of gun requires a different type of ammunition. Last year's ammu-

munition is not good for the service now, and the reserve, as I understand it, appropriated for next year will be probably unfit for the new type of guns, and it is therefore important to use that stock, because if it is not used it will be useless.

Admiral ROGERS. It is a matter of substantial economy. I will want to purchase some ammunition for the current year for the Navy, but I am unable to use the ammunition bought under the appropriation for the increase of the Navy, except on new ships, and there is more than is needed for that purpose.

Mr. PADGETT. I want to use it, but I do not want to pile up a reserve at the same time. Why pile it up if it is available for reserve purposes?

Admiral ROGERS. I know in the case of powder that the main reason—and that is the reason for asking for the passage of the joint resolution—is that unless we can use the powder it will deteriorate.

The CHAIRMAN. How much of it is there?

Admiral ROGERS. An inventory is being taken to ascertain with certainty.

Mr. PADGETT. The question came up in the discussion of the bill in the House. What is the percentage of deterioration?

Admiral ROGERS. I can not say.

Mr. HOBSON. I can answer that. It is not in the percentage, but in the chemical change. A chemical change takes place, and the powder must be thrown away. There is 100 per cent loss on that.

Mr. PADGETT. Why expend this \$2,000,000 this year for the purchase of reserve ammunition, and \$2,000,000 last year, and \$2,000,000 the year before? How long can that powder be kept in reserve before it becomes unfit for use?

Admiral ROGERS. That is a matter for Admiral Mason to answer.

Mr. PADGETT. If it is only useful for a year, what is the object in purchasing it?

Admiral ROGERS. Its life is longer than a year.

Mr. LILLEY. Why are these millions of dollars' worth of powder bought when you knew you could not use it except for new ships, and when you knew you had no new ships to use it on?

Admiral ROGERS. I do not know why. I know we have too much, bought in past years.

Mr. LILLEY. It seems strange that they would buy millions and millions of dollars' worth when they knew they had no way to use it.

Admiral ROGERS. I do not think they knew they could not use it.

The CHAIRMAN. It was probably bought for reserve to a large extent.

Admiral ROGERS. It has been for reserve and it is for reserve to-day.

The CHAIRMAN. Have you got for the coming year any ideas or suggestions in the way of reforms in connection with your Bureau?

Admiral ROGERS. I have nothing specific that I can think of just now. There are minor matters for the accomplishment of which I have been waiting for the time when I can secure more clerks in my Bureau to complete the work which has been started and which unquestionably has increased. Outside of that I have nothing particular now, except to say that we have had a great many changes.

The CHAIRMAN. Do these changes all work toward a simpler and more economical system?

Admiral ROGERS. Unquestionably.

The CHAIRMAN. And doing away with so much red tape. Is there any way of doing away with still more of it; any legislation which we can enact that you think would assist you in working still more economy in your bureau?

Mr. HOBSON. And also whether there could be any cooperation of the other bureaus?

Admiral ROGERS. I do not think of anything now. My relations with everybody, from the Secretary down, are of the most pleasant character. I have nothing to complain of, for I have received cordial support everywhere. But my head is full of schemes for improvement, and all I ask the committee to do is to let me alone for one year and trust me. When the time comes I will be ready to report to the committee and to state what sum I think is necessary to buy all the ordinary commercial stores for the Navy. All the surplus should be deposited in the Treasury.

At present I estimate \$12,000,000 is necessary. This will not include fuel, ammunition, and a few special articles. We have now \$2,700,000 granted by Congress. It is not sufficient. The common general stock will increase the naval supply fund. The time will come when the fund will be larger than Congress will care to put in my hands, or that ought to be put in anyone's hands, but that will not be for some years yet. Do not interfere with the naval supply fund; and if by next December I can not make good, I will be willing to stand aside.

Mr. HOBSON. I would ask if the system of accounts in relation to the various bureaus admit of reform; and if so, would it help your department?

Admiral ROGERS. Enormously. I have no desire to interfere in any way with any other bureau. When I have had criticisms to make I have taken them to the head of the Bureau and we have agreed. In no single case have I been compelled to appeal to the Secretary.

Mr. HOBSON. The impression has unfortunately been made that there is a good deal of trouble in the business management, and I am merely asking your impression upon that point.

Admiral ROGERS. If by trouble you mean friction, there is none; if you mean cumbersome methods, there is plenty. I will give you an example and will take a yard with which I am most familiar—my last duty. We have an increase of the navy account, a common general stock account, and a naval supply fund account. These are in loose-leafed ledgers, with a page 10 by 12 inches, and about 200 to 250 pages to the book. There were between 150 and 200 of those books in which to keep account of stock under three separate heads. It is a cumbersome method of bookkeeping.

Why do we need three accounts? Why not transfer all to the naval supply fund? Why not have one set of books instead of three sets—all parallel? I need not tell you gentlemen that the cost is great. It means more clerks, more stationery, more books, and more time. What reason can there be for the enumeration of one item several times? It does not cost so much money to keep an account of 100,000 pounds of bar iron under the naval supply fund as it does to keep 33,000 pounds in each of three separate accounts.

Mr. HOBSON. I want to ask if there was any way of substantially eliminating red tape in keeping the naval supply account?

Admiral ROGERS. I would not dare say, but——

Mr. HOBSON. We would like for you to say.

Admiral ROGERS. I can not estimate it. It is too big a proposition. In a communication I sent to the Secretary of the Navy I said it would be incalculable, and that it would reduce the mere cost of keeping naval stock ledgers fully 25 per cent.

Mr. HOBSON. Would you recommend further action for reorganization or for an enlargement of the naval supply fund?

Admiral ROGERS. Do you mean under the present law or looking to reorganization?

Mr. HOBSON. Reorganization.

Admiral ROGERS. Unquestionably. The trouble is not with the Navy Department; it is in the yards.

Mr. HOBSON. We want your opinion now on the important matter of reorganization. Would you recommend further reorganization; and if any, what, in addition to the development of the naval supply fund?

Admiral ROGERS. Oh, yes; of course I would. The main trouble does not rest in the Navy Department, and these stories of conflict of orders are all false. So far as I have been able to judge these officers are working for the very best interests of the service and with their hearts in their work. I do not mean to say that it is perfect. I believe that some of the bureaus could be consolidated and especially at yards. From what I have observed in the matter you are going to keep the bureau system in the Navy Department all the same, no matter what form reorganization takes.

STATEMENT A.—*Expenditures under appropriation "Pay, miscellaneous," for the fiscal year 1907.*

Mileage and transportation of officers and civilian employees.....	\$389, 470. 55
Net loss on exchange.....	11, 258. 70
Telegrams, cablegrams, and postage.....	32, 607. 37
Transportation of funds.....	3, 051. 14
Expenses of boards.....	16, 820. 40
Expenses of navy pay offices.....	103, 819. 39
Advertising.....	717. 19
Telephone service.....	1, 786. 53
Expenses of prisons and prisoners.....	34, 669. 33
Instruction of students.....	5, 407. 84
Expenses of naval attachés.....	15, 502. 67
Dispatch agents.....	1, 374. 49
Rents (Guam, Manila, Yokohama).....	5, 232. 35
Miscellaneous (stationery and other supplies for issue by general storekeepers to navy pay offices, boards, courts-martial, prisons, etc).....	5, 835. 81
Unsettled accounts and claims; telegram bills and other small items unpaid (approximately).....	10, 000. 00
Total.....	637, 551. 76
Unexpended balance.....	12, 448. 24

STATEMENT B.—Showing expenditures under "Provisions, Navy," for fiscal years 1906 and 1907.

(Estimated; very approximate)

1906.

Purchases of provisions at yards and stations and by pay officers afloat.....	\$2, 495, 000. 00
Rations commuted.....	1, 425, 000. 00
Labor in general storehouses.....	640, 000. 00
Total	4, 560, 000. 00
Balance	660, 000. 00
Appropriated for fiscal year 1906.....	5, 220, 000. 00

1907 (estimated).

Purchases of provisions at yards and stations and by pay officers afloat	3, 143, 000. 00
Rations commuted	1, 412, 000. 00
Labor in general storehouses.....	652, 000. 00
Total	5, 207, 000. 00
Balance	13, 000. 00
Appropriated for fiscal year 1906.....	5, 220, 000. 00

STATEMENT C.—Showing expenditures under contingent supplies and accounts for the fiscal year 1907.

Expressage.....	\$1, 345. 99
Fuel	3, 853. 98
Books, blanks, and stationery.....	\$31, 575. 65
Books, blanks, and stationery ordered from Public Printer.....	24, 886. 56
Advertising.....	56, 462. 21
Furniture, general storekeeper and pay offices.....	1, 234. 81
Naval clothing factory, expenses.....	17, 006. 44
Naval clothing factory, machinery.....	\$507. 00
	350. 00
	857. 09
Postage, telegrams, and telephones.....	6, 597. 79
Tolls and ferriage.....	577. 95
Yeomen's stores.....	6, 489. 86
Safes.....	1, 957. 77
Newspapers.....	105. 90
Ice.....	1, 885. 90
Miscellaneous:	
Packing and crating, material.....	\$31, 511. 07
Miscellaneous expenses (includes charges for maintenance of storehouses, butter and shoe inspectors, chemists' materials, etc.).....	19, 688. 54
Laundry	612. 06
Flour testing apparatus.....	1, 120. 02
Pneumatic tubes, New York.....	5, 300. 00
	58, 040. 69
Total	156, 416. 38
Balance	3, 383. 62
Appropriated for fiscal year 1907.....	160, 000. 00
Unexpended balance for fiscal year:	
1906.....	2, 380. 92
1905.....	20, 462. 61
1904.....	7, 856. 91
1903.....	4, 808. 76

STATEMENT D.—Showing allotments from appropriation "Provisions, Navy, 1908," to all navy-yards and stations for labor in general storehouses.

Portsmouth	\$24,000.00
Boston	70,000.00
Torpedo station	7,815.00
Training station, Newport	3,800.00
New York	225,000.00
League Island	40,000.00
Naval Academy	5,527.00
Washington	20,600.00
Norfolk	63,000.00
Port Royal	1,000.00
Charleston	6,000.00
Key West	5,611.00
Pensacola	16,500.00
New Orleans	7,840.00
North Chicago	1,000.00
Training station, San Francisco, Cal.	2,755.00
Mare Island	77,500.00
Puget Sound	18,500.00
Guantanamo	4,800.00
San Juan	4,882.00
Cavite	56,000.00
Gnam	11,000.00
Honolulu	1,500.00
Olongapo	7,000.00
Total	681,130.00

Additional allotments authorized.

Portsmouth	1,000.00
Washington	1,000.00
North Chicago	1,600.00
Puget Sound	2,000.00
Total	5,600.00
Grand total	686,730.00

STATEMENT E.—Extract from the Paymaster-General's letter of September 17, 1907, to the Secretary of the Navy.

CIVIL ESTABLISHMENT, 1909.

The following additional clerks under this caption are recommended:

Naval training station, Great Lakes:		
In general storehouse, 1 clerk	\$1,000.00	\$1,000.00
Naval station, Guantanamo, Cuba:		
In general storehouse—		
1 stenographer, at \$4 per diem	1,252.00	
1 storeman, at \$3.04 per diem	951.52	
		2,203.52
Naval station, Cavite, P. I.:		
In general storehouse—		
1 receiving and shipping clerk, pay raised from \$1,200 to \$1,400	200.00	
1 lumber inspector	1,000.00	
1 expert packer	900.00	
		2,100.00

All these were approved by the Department last year and those for Cavite the year before also, and in both years included in the final estimates.

Navy-yard, Pensacola, Fla.:

In general storehouse—

1 bookkeeper	\$1,200.00	
1 receiving and shipping clerk	1,000.00	
		\$2,200.00

This was recommended in 1906, and the need for these clerks is still more urgent now.

Navy-yard, Boston, Mass.:

In general storehouse—

1 bill clerk	1,000.00	
1 bookkeeper, pay increased from \$1,017.25 to \$1,200	182.75	
		1,182.75

Both these recommendations received the approval of the Secretary of the Navy in 1906 after the estimates were submitted, but were not acted on by the naval committee.

Navy Yard, Norfolk, Va.: In general storehouse: 1 receiving clerk, pay increased from \$942 to \$1,000 per annum

58.00 58.00

There are now 2 receiving clerks at this yard at \$942 each. At all other yards this place receives \$1,000 per annum. The increase is recommended by the general storekeeper, approved by the commandant, and would doubtless have received Secretary Bonaparte's approval, but the Paymaster-General was then too new in his office to explain the matter. The Secretary directed him to file a memorandum, which was done, but never acted on.

Navy Yard, New York: In general storehouse: 1 chief bookkeeper

1,500.00 1,500.00

The principal bookkeeper at this yard is an exceptional clerk and it is vital to the Government's interest to retain him, hence this estimate. He now receives \$4.24 per diem—\$1,327.12 a year.

Navy Yard, Washington, D. C.: In general storehouse: 1 bookkeeper

1,200.00 1,200.00

The navy-yards at Portsmouth, N. H.; Boston, Mass.; League Island, Pa.; Mare Island, Cal.; Norfolk, Va., and Puget Sound, Wash., all have 2 bookkeepers now allowed at \$1,200 each (except Boston, where 1 is at \$1,017.25), and Washington—quite as important a yard as any of these—should also have 2, and the additional one is needed.

Total under "Civil establishment, supplies, and accounts, 1909" 11,444.27

Also, that the salaries of 1 bookkeeper at each of the following yards be raised from \$1,200 to \$1,400 per annum: Boston, New York, Washington, Norfolk, Puget Sound, League Island, and Mare Island.

Each of these yards have more than 1 bookkeeper in the general storehouse (except Washington, and an additional bookkeeper for that yard is estimated for above). The reason for this recommendation is the general one that these clerks are most important, that their pay is now and has been for years but \$1,200 per annum, that no increase is possible except by the grace of Congress, and we can not keep these trained men unless we give them—not an adequate pay, \$1,400 a year is not that—but some increase to enable them to meet their added expenses, and so retain them in the service of the Government.

Sample of schedule sent to bidders.

No. 65.

NOTICE OF PURCHASES.

NAVY DEPARTMENT,
BUREAU OF SUPPLIES AND ACCOUNTS,
Washington, D. C., December 26, 1907.

This Bureau will open bids in Washington, on the dates stated below, for the following material. Bidders interested therein should fill out the inclosed application card, giving the schedule numbers desired, and forward same to the Bureau without delay. Applications will be filled as soon as the schedules are received from the Public Printer. Schedules can also be obtained upon application to the Navy Pay Office nearest each navy-yard:

[Opening January 14, 1908.]

MISCELLANEOUS.

Article.	Quantity.	Delivery at navy-yard.	Sch.
Agate ware.....	Miscellaneous.....	New York, N. Y.....	696

DRY GOODS, ETC.

Crash, Russian.....	6,000 yards.....	New York, N. Y.....	696
Handkerchiefs, cotton.....	10,000 dozen.....	do.....	696

Opening January 21, 1908.

MISCELLANEOUS.

Alcohol.....	200,000 gallons.....	Washington, D. C.....	700
Oakum.....	10,000 pounds.....	League Island, Pa.....	546
Do.....	20,000 pounds.....	New York, N. Y.....	546
Do.....	10,000 pounds.....	Norfolk, Va.....	546
Do.....	15,000 pounds.....	Boston, Mass.....	546
Do.....	3,000 pounds.....	Pensacola, Fla.....	546
Oars, ash, white.....	525.....	Portsmouth, N. H.....	556
Do.....	400.....	Boston, Mass.....	556
Do.....	2,950.....	League Island, Pa.....	556
Do.....	1,884.....	Norfolk, Va.....	556
Powder, soap.....	30,000 pounds.....	Boston, Mass.....	543
Do.....	50,000 pounds.....	New York, N. Y.....	543
Do.....	40,000 pounds.....	League Island, Pa.....	543
Do.....	30,000 pounds.....	Norfolk, Va.....	543
Paper, toilet.....	30,000 packages.....	League Island, Pa.....	566
Soap, fresh water, laundry.....	30,000 cakes.....	Boston, Mass.....	543
Do.....	60,000 cakes.....	New York, N. Y.....	543
Do.....	16,000 cakes.....	League Island, Pa.....	543
Do.....	16,000 cakes.....	Norfolk, Va.....	543
Soap, toilet.....	432 pounds.....	Boston, Mass.....	543
Do.....	1,000 pounds.....	New York, N. Y.....	543
Do.....	972 pounds.....	Norfolk, Va.....	543
Waste, cotton.....	10,000 pounds.....	Portsmouth, N. H.....	566
Do.....	100,000 pounds.....	Boston, Mass.....	566
Do.....	60,000 pounds.....	League Island, Pa.....	566
Do.....	125,000 pounds.....	Norfolk, Va.....	566
Do.....	6,000 pounds.....	Pensacola, Fla.....	566

BUILDING MATERIAL, ETC.

Cement, Portland.....	800 barrels.....	Portsmouth, N. H.....	566
Do.....	1,000 barrels.....	Boston, Mass.....	566
Do.....	350 barrels.....	Pensacola, Fla.....	566
Do.....	1,262,000 pounds.....	League Island, Pa.....	566

BRUSHES, BROOMS, ETC.

Brushes, miscellaneous.....	189 dozen.....	Portsmouth, N. H.....	545
Do.....	1,091 dozen.....	Boston, Mass.....	545
Do.....	1,409 dozen.....	New York, N. Y.....	545
Do.....	1,063 dozen.....	League Island, Pa.....	545
Do.....	1,130 dozen.....	Norfolk, Va.....	545
Brushes, deck scrubbing.....	250 dozen.....	do.....	566
Brushes, hand scrubbing.....	125 dozen.....	do.....	566
Brushes, for castings.....	80 dozen.....	do.....	566
Brooms, corn.....	80 dozen.....	Portsmouth, N. H.....	566
Do.....	260 dozen.....	Boston, Mass.....	566
Do.....	720 dozen.....	New York, N. Y.....	566
Do.....	375 dozen.....	League Island, Pa.....	566
Do.....	400 dozen.....	Norfolk, Va.....	566

CANVAS, BUNTING, DRY GOODS, ETC.

Bunting, miscellaneous.....	140,000 yards.....	New York, N. Y.....	530
Do.....	6,000 yards.....	Boston, Mass.....	530
Do.....	6,900 yards.....	League Island, Pa.....	530
Do.....	3,000 yards.....	Norfolk, Va.....	530
Canvas, cotton.....	22,500 yards.....	Portsmouth, N. H.....	540
Do.....	81,400 yards.....	Boston, Mass.....	540

CANVAS, BUNTING, DRY GOODS, ETC.—Continued.

Article.	Quantity.	Delivery at navy-yard.	Sch.
Canvas and duck.....	15,000 yards.....	Boston, Mass.....	504
Canvas, cotton.....	113,000 yards.....	New York, N. Y.....	540
Canvas, cotton, bag and hammock.....	90,000 yards.....	do.....	540
Canvas, cotton.....	39,800 yards.....	League Island, Pa.....	540
Canvas, cotton, bag and hammock.....	16,000 yards.....	do.....	540
Canvas, cotton.....	81,700 yards.....	Norfolk, Va.....	540
Canvas, cotton, khaki.....	24,700 yards.....	League Island, Pa.....	540
Canvas.....	112,000 yards.....	New York, N. Y.....	540
Do.....	39,900 yards.....	Norfolk, Va.....	540
Canvas, flax.....	3,000 yards.....	Portsmouth, N. H.....	540
Do.....	8,400 yards.....	Boston, Mass.....	540
Do.....	22,400 yards.....	League Island, Pa.....	540
Do.....	55,000 yards.....	New York, N. Y.....	540
Do.....	43,000 yards.....	Norfolk, Va.....	540
Jerseys, woolen.....	30,000.....	New York, N. Y.....	629
Towels, bath, cotton.....	60,000 yards.....	do.....	629

CHEMICALS, PAINTS, OILS, ETC.

Acid, muriatic.....	6,250 pounds.....	Portsmouth, N. H.....	542
Do.....	32,000 pounds.....	Boston, Mass.....	542
Do.....	400 pounds.....	New York, N. Y.....	542
Do.....	30,000 pounds.....	Norfolk, Va.....	542
Alcohol.....	6,000 gallons.....	Boston, Mass.....	555
Do.....	30,000 gallons.....	New York, N. Y.....	555
Do.....	10,000 gallons.....	League Island, Pa.....	555
Do.....	12,000 gallons.....	Norfolk, Va.....	555
Chloride of calcium.....	5,000 pounds.....	do.....	560
Do.....	5,000 pounds.....	Boston, Mass.....	560
Do.....	10,000 pounds.....	New York, N. Y.....	560
Chemicals, paints, oils, etc., miscellaneous.....	23,200 pounds.....	Boston, Mass.....	553
Do.....	101,500 pounds.....	New York, N. Y.....	553
Do.....	78,050 pounds.....	League Island, Pa.....	553
Do.....	78,300 pounds.....	Norfolk, Va.....	553
Drier, Japan.....	3,000 gallons.....	Boston, Mass.....	555
Do.....	3,000 gallons.....	New York, N. Y.....	555
Do.....	1,500 gallons.....	League Island, Pa.....	555
Do.....	4,500 gallons.....	Norfolk, Va.....	555
Glycerin.....	2,000 gallons.....	Boston, Mass.....	544
Do.....	4,000 gallons.....	New York, N. Y.....	544
Do.....	900 gallons.....	League Island, Pa.....	544
Do.....	1,500 gallons.....	Norfolk, Va.....	544
Glue, marine.....	8,000 pounds.....	Portsmouth, N. H.....	555
Do.....	20,000 pounds.....	Boston, Mass.....	555
Do.....	20,000 pounds.....	New York, N. Y.....	555
Do.....	12,500 pounds.....	League Island, Pa.....	555
Do.....	10,000 pounds.....	Norfolk, Va.....	555
Glue, white and brown.....	3,500 pounds.....	New York, N. Y.....	555
Do.....	3,000 pounds.....	Boston, Mass.....	555
Glue, Le Page's.....	800 pints.....	do.....	555
Do.....	300 pints.....	New York, N. Y.....	555
Gasoline.....	4,000 gallons.....	Norfolk, Va.....	555
Do.....	3,000 gallons.....	League Island, Pa.....	555
Lye, concentrated.....	15,000 pounds.....	Boston, Mass.....	542
Do.....	30,000 pounds.....	New York, N. Y.....	542
Do.....	6,000 pounds.....	League Island, Pa.....	542
Do.....	15,000 pounds.....	Norfolk, Va.....	542
Lampblack, carbon gas.....	6,000 pounds.....	Portsmouth, N. H.....	553
Lead, red, dry.....	20,000 pounds.....	do.....	553
Do.....	150,000 pounds.....	Boston, Mass.....	553
Do.....	175,000 pounds.....	New York, N. Y.....	553
Do.....	120,000 pounds.....	League Island, Pa.....	553
Do.....	140,000 pounds.....	Norfolk, Va.....	553
Do.....	15,000 pounds.....	Pensacola, Fla.....	553
Lead, white, in oil.....	60,000 pounds.....	Portsmouth, N. H.....	553
Do.....	151,000 pounds.....	Boston, Mass.....	553
Do.....	610,000 pounds.....	New York, N. Y.....	553
Do.....	250,000 pounds.....	League Island, Pa.....	553
Do.....	200,000 pounds.....	Norfolk, Va.....	553
Do.....	30,000 pounds.....	Pensacola, Fla.....	553
Polish, metal, liquid.....	12,000 pints.....	Norfolk, Va.....	542
Do.....	5,800 pints.....	Boston, Mass.....	542
Do.....	10,000 pints.....	New York, N. Y.....	542
Do.....	5,000 pints.....	League Island, Pa.....	542
Paste, polishing.....	12,000 pounds.....	Boston, Mass.....	542
Do.....	10,000 pounds.....	New York, N. Y.....	542
Do.....	18,000 pounds.....	League Island, Pa.....	542
Do.....	12,000 pounds.....	Norfolk, Va.....	542

CHEMICALS, PAINTS, OILS, ETC.—Continued.

Article.	Quantity.	Delivery at navy-yard.	Sch.
Petrolatum.....	6,000 pounds.	Norfolk, Va.	555
Do.....	5,000 pounds.	League Island, Pa.	555
Do.....	4,000 pounds.	Boston, Mass.	555
Do.....	10,000 pounds.	New York, N. Y.	555
Paint, aluminum.....	600 gallons.	Boston, Mass.	553
Do.....	504 gallons.	New York, N. Y.	553
Do.....	500 gallons.	League Island, Pa.	553
Do.....	800 gallons.	Norfolk, Va.	553
Red, Venetian.....	5,000 pounds.	Portsmouth, N. H.	553
Do.....	32,000 pounds.	Boston, Mass.	553
Do.....	50,000 pounds.	New York, N. Y.	553
Sodium, granular, carbonate.....	30,000 pounds.	Boston, Mass.	542
Do.....	20,000 pounds.	New York, N. Y.	542
Do.....	40,000 pounds.	League Island, Pa.	542
Do.....	30,000 pounds.	Norfolk, Va.	542
Vermilion, ocher, etc.....	7,500 pounds.	Boston, Mass.	553
Do.....	42,500 pounds.	New York, N. Y.	553
Varnish, asphaltum.....	2,500 gallons.	League Island, Pa.	554
Do.....	1,500 gallons.	Boston, Mass.	554
Do.....	4,000 gallons.	New York, N. Y.	554
Do.....	3,000 gallons.	Norfolk, Va.	554
Varnish, spar.....	4,000 gallons.	New York, N. Y.	554
Do.....	600 gallons.	League Island, Pa.	554
Do.....	3,000 gallons.	Norfolk, Va.	554
Varnish, damar.....	3,000 gallons.	do.	554
Do.....	600 gallons.	Boston, Mass.	554
Do.....	3,000 gallons.	New York, N. Y.	554
Do.....	1,000 gallons.	League Island, Pa.	554
Varnish, interior.....	1,500 gallons.	do.	554
Zinc, white, in oil.....	20,000 pounds.	Portsmouth, N. H.	553
Do.....	120,000 pounds.	Boston, Mass.	553
Do.....	250,000 pounds.	New York, N. Y.	553
Do.....	80,000 pounds.	League Island, Pa.	553
Do.....	125,000 pounds.	Norfolk, Va.	553
Do.....	6,000 pounds.	Pensacola, Fla.	553

HARDWARE, TOOLS, ETC.

Buckets, galvanized iron.....	500.	Portsmouth, N. H.	563
Do.....	150 dozen.	Boston, Mass.	563
Do.....	3,000.	League Island, Pa.	563
Do.....	210 dozen.	Norfolk, Va.	563
Bolts, tap.....	29,500.	Boston, Mass.	547
Do.....	24,000.	New York, N. Y.	547
Do.....	12,500.	League Island, Pa.	547
Bolts and nuts, steel.....	72,100 pounds.	Portsmouth, N. H.	547
Do.....	112,800 pounds.	Boston, Mass.	547
Do.....	105,400 pounds.	New York, N. Y.	547
Bolts and nuts, iron, galvanized.....	1,300 pounds.	Boston, Mass.	547
Bolts and nuts, steel.....	40,500 pounds.	League Island, Pa.	547
Do.....	76,200 pounds.	Norfolk, Va.	547
Bolts, steel, machine screw.....	600 gross.	New York, N. Y.	560
Do.....	120 gross.	Boston, Mass.	560
Bolts, miscellaneous.....	3,810 pounds.	do.	560
Bolts, nuts, and eyebolts.....	Miscellaneous.	do.	560
Bolts and eyebolts.....	do.	New York, N. Y.	560
Bolts, brass, machine screw.....	200 gross.	Boston, Mass.	562
Bolts, flush, bronze.....	11 dozen.	do.	562
Do.....	32 dozen.	New York, N. Y.	562
Bolts, stove, steel.....	65,300.	Boston, Mass.	562
Do.....	37,000.	New York, N. Y.	562
Do.....	72,600.	League Island, Pa.	562
Bolts, carriage and rivet, etc.....	3,840.	Boston, Mass.	562
Bolts, carriage, iron.....	4,000.	New York, N. Y.	562
Cans, shipping.....	230 dozen.	Boston, Mass.	550
Do.....	2,000.	League Island, Pa.	550
Cans, paint.....	10,000.	do.	550
Do.....	100 dozen.	Boston, Mass.	550
Do.....	5,000.	Norfolk, Va.	550
Cases, shipping.....	3,000.	New York, N. Y.	550
Do.....	1,000.	Norfolk, Va.	550
Dies, hand, machine.....	252.	League Island, Pa.	548
Drills, twist, miscellaneous.....	722½ dozen.	Portsmouth, N. H.	548
Do.....	511 dozen.	Boston, Mass.	548
Do.....	48 sets.	do.	548
Do.....	555 dozen.	New York, N. Y.	548
Do.....	70 sets.	do.	548
Drills, miscellaneous.....	542 dozen.	League Island, Pa.	548
Do.....	133 sets.	do.	548
Drills, twist.....	338 dozen.	Norfolk, Va.	548
Eyebolts and ringbolts.....	20 dozen.	New York, N. Y.	562

HARDWARE TOOLS, ETC.—Continued.

Article.	Quantity.	Delivery at navy-yard.	Sch.
Files, miscellaneous.....	1,001 dozen.....	Portsmouth, N. H.....	540
Do.....	2,355 dozen.....	Boston, Mass.....	540
Do.....	3,284 dozen.....	New York, N. Y.....	540
Do.....	1,653 dozen.....	League Island, Pa.....	540
Do.....	1,722 dozen.....	Norfolk, Va.....	540
Locks, miscellaneous.....	141 dozen.....	Boston, Mass.....	550
Do.....	130 dozen.....	New York, N. Y.....	550
Do.....	258 dozen.....	League Island, Pa.....	550
Do.....	396 dozen.....	Norfolk, Va.....	550
Machinists' sets.....	38 dozen.....	Boston, Mass.....	548
Do.....	50 sets.....	New York, N. Y.....	548
Nuts, brass.....	1,900 pounds.....	League Island, Pa.....	560
Nails, miscellaneous.....	20,900 pounds.....	do.....	550
Do.....	26,300 pounds.....	Portsmouth, N. H.....	563
Nails, copper, boat.....	800 pounds.....	League Island, Pa.....	550
Nails, miscellaneous.....	28,000 pounds.....	Boston, Mass.....	563
Nails, steel wire.....	32,000 pounds.....	New York, N. Y.....	563
Nails, copper.....	1,500 pounds.....	do.....	563
Do.....	6,800 pounds.....	Norfolk, Va.....	563
Nails, iron, cut.....	34,000 pounds.....	do.....	563
Pipe sets.....	18 sets.....	Boston, Mass.....	548
Padlocks.....	66 dozen.....	Portsmouth, N. H.....	550
Padlocks, bronze.....	260 dozen.....	Boston, Mass.....	550
Do.....	200 dozen.....	New York, N. Y.....	550
Do.....	225 dozen.....	Norfolk, Va.....	550
Padlocks.....	381 dozen.....	League Island, Pa.....	550
Shovels, miscellaneous.....	18 dozen.....	Portsmouth, N. H.....	563
Do.....	140 dozen.....	Boston, Mass.....	563
Do.....	200 dozen.....	New York, N. Y.....	563
Do.....	176 dozen.....	League Island, Pa.....	563
Shovels, scoop.....	200 dozen.....	Norfolk, Va.....	563
Screws, brass, wood.....	148 gross.....	Portsmouth, N. H.....	561
Do.....	3,678 gross.....	Boston, Mass.....	561
Do.....	2,985 gross.....	New York, N. Y.....	561
Do.....	5,252 gross.....	League Island, Pa.....	561
Do.....	2,988 gross.....	Norfolk, Va.....	561
Screws, brass and iron, machine.....	1,404 gross.....	Boston, Mass.....	561
Screws, brass, machine.....	815 gross.....	New York, N. Y.....	561
Do.....	1,332 gross.....	League Island, Pa.....	561
Screws, miscellaneous.....	17,700.....	Boston, Mass.....	562
Do.....	10,100.....	New York, N. Y.....	562
Do.....	7,500.....	League Island, Pa.....	562
Taps, hand.....	66 sets.....	Portsmouth, N. H.....	548
Do.....	66 dozen.....	do.....	548
Taps and dies, machine screw.....	659 dozen.....	Boston, Mass.....	548
Taps, hand, machine.....	592 sets.....	do.....	548
Do.....	150 sets.....	New York, N. Y.....	548
Do.....	1,062 sets.....	League Island, Pa.....	548
Taps, pipe.....	62.....	Boston, Mass.....	548
Do.....	20.....	New York, N. Y.....	548
Taps and dies, iron pipe.....	24 sets.....	Norfolk, Va.....	548

HOSE, PACKING, ETC.

Covering, pipe, magnesla.....	14,930 linear feet.....	Boston, Mass.....	558
Do.....	11,400 linear feet.....	League Island, Pa.....	558
Do.....	6,100 linear feet.....	New York, N. Y.....	558
Hose, fire, rubber.....	600 feet.....	Boston, Mass.....	541
Hose, rubber, 1½ inch.....	600 feet.....	do.....	541
Hose, rubber.....	600 feet.....	do.....	541
Do.....	5,000 feet.....	New York, N. Y.....	541
Hose, fire, upper deck.....	5,000 feet.....	Boston, Mass.....	541
Hose, suction.....	360 feet.....	do.....	541
Hose, wash deck.....	3,000 feet.....	do.....	541
Hose, steam.....	1,000 feet.....	do.....	541
Hose, unlined linen, fire.....	2,000 feet.....	do.....	541
Hose, fire, upper deck.....	10,000 feet.....	New York, N. Y.....	541
Hose, wash deck.....	10,000 feet.....	do.....	541
Hose, steam.....	4,000 feet.....	do.....	541
Hose, unlined linen, fire.....	2,500 feet.....	do.....	541
Hose, garden.....	1,950 feet.....	Boston, Mass.....	541
Do.....	2,500 feet.....	New York, N. Y.....	541
Hose, suction.....	800 feet.....	League Island, Pa.....	541
Hose, rubber, copper-wound.....	300 feet.....	do.....	541
Hose, for plumber's force pump.....	60 feet.....	do.....	541
Hose, linen, unlined.....	500 feet.....	do.....	541
Hose, wash deck.....	3,000 feet.....	do.....	541
Hose, steam.....	600 feet.....	do.....	541
Hose, wash deck.....	3,000 feet.....	Norfolk, Va.....	541

HOSE, PACKING, ETC.—Continued.

Article.	Quantity.	Delivery at navy-yard.	Sch.
Hose, upper deck.....	5,000 feet.....	Norfolk, Va.....	541
Hose, rubber.....	2,000 feet.....	do.....	541
Lacing, corset.....	400 pounds.....	Boston, Mass.....	558
Do.....	1,000 pounds.....	New York, N. Y.....	558
Packing, sheet gum.....	1,000 square yards.....	League Island, Pa.....	558
Packing, sheet, miscellaneous.....	525 square yards.....	Portsmouth, N. H.....	558
Packing, asbestos millboard.....	5,000 pounds.....	Boston, Mass.....	558
Packing.....	9,250 pounds.....	New York, N. Y.....	558
Packing, sheet.....	1,200 square yards.....	do.....	558
Packing, flax.....	6,000 pounds.....	Norfolk, Va.....	558
Packing.....	2,250 pounds.....	League Island, Pa.....	558
Do.....	6,300 pounds.....	Boston, Mass.....	558
Do.....	8,700 pounds.....	New York, N. Y.....	558
Packing, Tuck's.....	4,200 pounds.....	Boston, Mass.....	558
Do.....	3,700 pounds.....	New York, N. Y.....	558
Do.....	1,150 pounds.....	Portsmouth, N. H.....	558
Do.....	1,100 pounds.....	League Island, Pa.....	558
Do.....	560 pounds.....	Norfolk, Va.....	558
Packing, asbestos, wick.....	300 pounds.....	Boston, Mass.....	558
Do.....	1,500 pounds.....	New York, N. Y.....	558
Packing, Italian square hemp.....	250 pounds.....	Boston, Mass.....	558
Packing, condenser tube.....	600 pounds.....	Norfolk, Va.....	558
Tubing, soft rubber.....	800 feet.....	do.....	558

LUMBER, ETC.

Ash, white, No. 1.....	46,000 ft. B. M.....	Portsmouth, N. H.....	551
Do.....	218,500 ft. B. M.....	League Island, Pa.....	551
Do.....	75,000 ft. B. M.....	New York, N. Y.....	551
Do.....	72,000 ft. B. M.....	Norfolk, Va.....	551
Do.....	30,000 ft. B. M.....	Boston, Mass.....	551
Cedar, white, No. 1.....	40,000 ft. B. M.....	League Island, Pa.....	551
Clapboards, pine.....	2,000.....	Portsmouth, N. H.....	551
Laths, spruce.....	10,000.....	do.....	551
Mahogany.....	25,000 ft. B. M.....	League Island, Pa.....	551
Oak, white, No. 1.....	6,100 ft. B. M.....	Norfolk, Va.....	551
Do.....	51,000 ft. B. M.....	Boston, Mass.....	551
Oak, white, miscellaneous.....	57,000 ft. B. M.....	Portsmouth, N. H.....	551
Oak, country, New Hampshire.....	15,000 ft. B. M.....	do.....	551
Oak, white, miscellaneous.....	144,000 ft. B. M.....	League Island, Pa.....	551
Pine, yellow, No. 1.....	115,000 ft. B. M.....	New York, N. Y.....	551
Pine, yellow, flooring.....	10,000 ft. B. M.....	Portsmouth, N. H.....	551
Pine, yellow, No. 1.....	158,000 ft. B. M.....	Boston, Mass.....	551
Do.....	217,000 ft. B. M.....	League Island, Pa.....	551
Pine, yellow.....	105,500 ft. B. M.....	Pensacola, Fla.....	551
Do.....	304,000 ft. B. M.....	Norfolk, Va.....	551
Pine, white.....	40,000 ft. B. M.....	Boston, Mass.....	551
Do.....	50,000 ft. B. M.....	Portsmouth, N. H.....	551
Do.....	385,000 ft. B. M.....	Boston, Mass.....	551
Do.....	425,000 ft. B. M.....	New York, N. Y.....	551
Do.....	1,159,000 ft. B. M.....	League Island, Pa.....	551
Do.....	256,000 ft. B. M.....	Norfolk, Va.....	551
Pine, North Carolina.....	216,000 ft. B. M.....	do.....	551
Pine, white.....	18,000 ft. B. M.....	Pensacola, Fla.....	551
Poplar, yellow, No. 1.....	35,000 ft. B. M.....	League Island, Pa.....	551
Do.....	9,000 ft. B. M.....	Pensacola, Fla.....	551
Spruce and hemlock.....	20,000 ft. B. M.....	Portsmouth, N. H.....	551
Do.....	74,000 ft. B. M.....	League Island, Pa.....	551
Spruce, white.....	166,000 ft. B. M.....	Boston, Mass.....	551
Spruce, No. 1.....	380,000 ft. B. M.....	New York, N. Y.....	551
Shingles.....	20,000.....	Portsmouth, N. H.....	551

METALS, ETC.

Iron, bar.....	99,250 pounds.....	Portsmouth, N. H.....	552
Iron, square, Norway.....	12,400 pounds.....	do.....	552
Iron, bar.....	68,200 pounds.....	Boston, Mass.....	552
Do.....	53,200 pounds.....	New York, N. Y.....	552
Do.....	300,700 pounds.....	League Island, Pa.....	552
Do.....	184,000 pounds.....	Norfolk, Va.....	552
Do.....	63,900 pounds.....	Pensacola, Fla.....	552
Iron, galvanized, round.....	10,000 pounds.....	do.....	552
Iron, pig, charcoal.....	40 tons.....	Portsmouth, N. H.....	554
Iron, foundry.....	40 tons.....	do.....	554
Iron, American, Nos. 1 and 2.....	140 tons.....	do.....	554
Iron, No. 1.....	150 tons.....	Boston, Mass.....	554
Do.....	300 tons.....	New York, N. Y.....	554
Do.....	300 tons.....	Norfolk, Va.....	554

METALS, ETC.—Continued.

Article.	Quantity.	Delivery at navy-yard.	Sch.
Iron, No. 1.....	25 tons.....	Pensacola, Fla.....	564
Do.....	120 tons.....	League Island, Pa.....	564
Steel, cold-rolled.....	16,200 pounds.....	Boston, Mass.....	562
Do.....	9,500 pounds.....	New York, N. Y.....	562
Steel, sheet, galvanized.....	39,000 pounds.....	Portsmouth, N. H.....	562
Do.....	105,000 pounds.....	Boston, Mass.....	562
Do.....	112,550 pounds.....	New York, N. Y.....	562
Do.....	173,000 pounds.....	League Island, Pa.....	562
Do.....	144,000 pounds.....	Norfolk, Va.....	562
Do.....	13,000 pounds.....	Pensacola, Fla.....	562
Steel, mild.....	30,610 pounds.....	Portsmouth, N. H.....	562
Steel, bar, medium.....	118,800 pounds.....	Boston, Mass.....	567
Do.....	61,500 pounds.....	New York, N. Y.....	567
Do.....	80,000 pounds.....	Norfolk, Va.....	567
Do.....	10,200 pounds.....	Pensacola, Fla.....	567
Steel, bar, machinery.....	81,300 pounds.....	League Island, Pa.....	567

PIPE, FITTINGS, ETC.

Pipe, iron, galvanized.....	39,000 feet.....	Portsmouth, N. H.....	559
Pipe, wrought iron, miscellaneous.....	41,000 feet.....	Boston, Mass.....	559
Do.....	75,000 feet.....	New York, N. Y.....	559
Pipe, wrought iron, steam.....	49,000 feet.....	League Island, Pa.....	559
Pipe, steam, wrought iron or steel.....	61,000 feet.....	Norfolk, Va.....	559
Pipe, galvanized, wrought iron or steel.....	10,000 feet.....	Pensacola, Fla.....	559

STATIONERY, ETC.

Books, press copy.....	216.....	League Island, Pa.....	565
Books, press copy, letter.....	21 dozen.....	Boston, Mass.....	565
Do.....	18 dozen.....	New York, N. Y.....	565
Do.....	30 dozen.....	Norfolk, Va.....	565
Books, blank, memorandum, etc.....	572 dozen.....	do.....	565
Do.....	250 dozen.....	Boston, Mass.....	565
Books, blank, stenographers.....	276 dozen.....	New York, N. Y.....	565
Books, blank, memorandum, etc.....	4,556.....	League Island, Pa.....	565
Bands, rubber, miscellaneous.....	Miscellaneous.....	Boston, Mass.....	565
Do.....	102 gross.....	Portsmouth, N. H.....	565
Do.....	1,258 gross.....	League Island, Pa.....	565
Do.....	775 gross.....	Norfolk, Va.....	565
Boxes, filing, cardboard.....	60 dozen.....	Boston, Mass.....	565
Do.....	10 dozen.....	New York, N. Y.....	565
Do.....	228.....	League Island, Pa.....	565
Do.....	288.....	Norfolk, Va.....	565
Cloth, tracing.....	200 rolls.....	do.....	565
Do.....	30 rolls.....	New York, N. Y.....	565
Cloth and paper, tracing and drawing.....	110 rolls.....	Boston, Mass.....	565
Cloth and paper, tracing.....	100 rolls.....	League Island, Pa.....	565
Files, letter, miscellaneous.....	43 dozen.....	Boston, Mass.....	565
Do.....	36 dozen.....	New York, N. Y.....	565
Ink, miscellaneous.....	Miscellaneous.....	League Island, Pa.....	565
Do.....	do.....	Norfolk, Va.....	565
Do.....	do.....	Boston, Mass.....	565
Do.....	do.....	New York, N. Y.....	565
Ink, mimeograph.....	100 pounds.....	Norfolk, Va.....	565
Machines, letter copying.....	12.....	do.....	565
Medium parchment, blue-process paper.....	96 rolls.....	Boston, Mass.....	565
Pads, memorandum, miscellaneous.....	1,700 dozen.....	do.....	565
Do.....	8,000 dozen.....	New York, N. Y.....	565
Do.....	1,090 dozen.....	League Island, Pa.....	565
Do.....	1,700 dozen.....	Norfolk, Va.....	565
Paper, drawing and tracing.....	600 yards.....	League Island, Pa.....	565
Paper, miscellaneous.....	114 reams.....	Boston, Mass.....	565
Do.....	1,250 reams.....	New York, N. Y.....	565
Do.....	306 reams.....	League Island, Pa.....	565
Do.....	552 reams.....	Norfolk, Va.....	565
Paper, typewriter, miscellaneous.....	230 reams.....	Portsmouth, N. H.....	565
Do.....	1,323 reams.....	Boston, Mass.....	565
Do.....	4,300 reams.....	New York, N. Y.....	565
Do.....	1,476 reams.....	League Island, Pa.....	565
Do.....	3,900 reams.....	Norfolk, Va.....	565
Paper, wrapping, manila.....	48 reams.....	do.....	565
Do.....	45 reams.....	Boston, Mass.....	565
Do.....	200 reams.....	New York, N. Y.....	565
Do.....	28 reams.....	League Island, Pa.....	565
Paper, blotting, miscellaneous.....	1,200 packages.....	do.....	565
Paper, blotting.....	8 reams.....	do.....	565

STATIONERY, ETC.—Continued.

Article.	Quantity.	Delivery at navy-yard.	Sch.
Paper, blotting, miscellaneous.....	1,000 packages.....	Boston, Mass.....	565
Paper, blotting.....	6,000 sheets.....	do.....	565
Paper, blotting, miscellaneous.....	10,000 packages.....	New York, N. Y.....	565
Paper.....	400 packages.....	Norfolk, Va.....	565
Paper, blotting.....	30 reams.....	do.....	565
Pencils, black lead.....	1,646 dozen.....	Boston, Mass.....	565
Do.....	3,263 dozen.....	New York, N. Y.....	565
Do.....	2,280 dozen.....	League Island, Pa.....	565
Do.....	2,912 dozen.....	Norfolk, Va.....	565
Penholders, miscellaneous.....	207 dozen.....	Boston, Mass.....	565
Do.....	385 dozen.....	New York, N. Y.....	565
Do.....	3,218 dozen.....	League Island, Pa.....	565
Do.....	484 dozen.....	Norfolk, Va.....	565
Pens, steel, miscellaneous.....	400 gross.....	Boston, Mass.....	565
Do.....	590 gross.....	New York, N. Y.....	565
Do.....	634 gross.....	League Island, Pa.....	565
Do.....	1,520 gross.....	Norfolk, Va.....	565
Tags, shipping.....	170,000.....	do.....	565
Do.....	20,000.....	Boston, Mass.....	565
Do.....	70,000.....	New York, N. Y.....	565
Do.....	84,000.....	League Island, Pa.....	565
Typewriter ribbons, Underwood.....	984.....	do.....	565
Do.....	130 dozen.....	Boston, Mass.....	565
Do.....	125 dozen.....	Norfolk, Va.....	565
Do.....	150 dozen.....	New York, N. Y.....	565
Typewriter paper, carbon, miscellaneous.....	390 boxes.....	Boston, Mass.....	565
Do.....	600 boxes.....	New York, N. Y.....	565
Do.....	305 boxes.....	League Island, Pa.....	565
Do.....	606 boxes.....	Norfolk, Va.....	565
Sponge, No. 1.....	50 pounds.....	do.....	565
Stationery.....	Miscellaneous.....	do.....	565
Do.....	do.....	Portsmouth, N. H.....	565
Do.....	do.....	Boston, Mass.....	565
Do.....	do.....	New York, N. Y.....	565
Do.....	do.....	League Island, Pa.....	565

[Opening January 22, 1903.]

MISCELLANEOUS.

Ambulance, steam power.....	1.....	Naval hospital, New Fort Lyon, Las Animas, Colo.....	506
Carpet and furniture.....	Miscellaneous.....	Mare Island, Cal.....	627
Carbons, copper-coated.....	1,225.....	do.....	628
Candles.....	5,040 pounds.....	Puget Sound, Wash.....	628
Carpet lining and chalk line.....	625,600 yards.....	Mare Island, Cal.....	620
Cakum.....	29,000 pounds.....	do.....	622
Do.....	25,080 pounds.....	Puget Sound, Wash.....	625
Stationery.....	Miscellaneous.....	Mare Island, Cal.....	622
Stained letters and figures, brass.....	204 sets.....	do.....	620
Slabs, compressed cork, for insulating purposes.....	1,000.....	do.....	622

DRY GOODS, ETC.

Woolenchiefs.....	60,000.....	New York, N. Y.....	712
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HARDWARE, TOOLS, ETC.

Files, miscellaneous.....	726 dozen.....	Puget Sound, Wash.....	620
Nuts and washers.....	19,748 pounds.....	Mare Island, Cal.....	620
Nails, sheathing, composition.....	5,175 pounds.....	Puget Sound, Wash.....	620
Do.....	12,000 pounds.....	Mare Island, Cal.....	620
Pumps, bilge.....	33.....	do.....	620
Spikes, miscellaneous.....	43,200 pounds.....	do.....	620

HOSE, PACKING, ETC.

Felt, asbestos fire.....	200 square feet.....	Mare Island, Cal.....	622
Gasket, strip gum.....	2,500 pounds.....	do.....	622
Rubber, strip, for gaskets.....	1,100 pounds.....	Puget Sound, Wash.....	622

LUMBER, ETC.

Article.	Quantity.	Delivery at navy-yard.	Sch.
Ash, white.....	20,000 feet B. M.....	Mare Island, Cal.....	691
Hickory.....	2,500 feet B. M.....	do.....	691
Mahogany.....	5,000 feet B. M.....	do.....	691
Oak, white.....	12,500 feet B. M.....	do.....	691
Plies, Douglas fir.....	58.....	do.....	689
Pine, sugar.....	10,000 feet B. M.....	do.....	691
Pine, Oregon, ship timber and spar stock.....	105,000 feet B. M.....	do.....	691
Pine, Oregon, miscellaneous.....	1,578,000 feet B. M.....	do.....	691
Redwood, No. 1.....	65,000 feet B. M.....	do.....	691
Spruce.....	15,000 feet B. M.....	do.....	691

METALS, ETC.

Copper, sheet.....	12,000 pounds.....	Mare Island, Cal.....	694
Lead, sheet.....	49,000 pounds.....	do.....	694
Steel or wrought iron.....	60,000 pounds.....	do.....	692
Steel or rivet iron.....	97,000 pounds.....	do.....	692

PAINTS, OILS, ETC.

Plaster of Paris.....	3,000 pounds.....	Mare Island, Cal.....	692
Pitch, North Carolina pine.....	64 barrels.....	do.....	692
Tar, North Carolina pine.....	1,600 gallons.....	do.....	692

PIPE, FITTINGS, ETC.

Fittings, pipe.....	Miscellaneous.....	Mare Island, Cal.....	693
Glasses, gauge, for boilers.....	895 dozen.....	do.....	694
Pipe, lead.....	17,800 pounds.....	do.....	694
Tubing, copper.....	44,800 pounds.....	do.....	694
Valves, gate, brass.....	67 dozen.....	do.....	693
Valves, miscellaneous.....	437 dozen.....	do.....	693

PROVISIONS.

Apples, evaporated.....	35,000 pounds.....	Mare Island, Cal.....	699
Apricots, tinned.....	40,000 pounds.....	do.....	699
Beef, corned, tinned.....	150,000 pounds.....	do.....	699
Bacon, tinned.....	200,000 pounds.....	do.....	699
Beans, in half barrels.....	55,000 gallons.....	do.....	699
Beans, string, tinned.....	75,000 pounds.....	do.....	699
Beans, Lima, tinned.....	50,000 pounds.....	do.....	699
Butter, tinned.....	72,000 pounds.....	do.....	697
Do.....	72,000 pounds.....	New York, N. Y.....	697
Do.....	108,000 pounds.....	Either Mare Island or New York.....	697
Corn, tinned.....	150,000 pounds.....	Mare Island, Cal.....	699
Cocoa.....	15,000 pounds.....	do.....	699
Ham, tinned.....	15,000 pounds.....	do.....	699
Lard, tinned.....	250,000 pounds.....	do.....	699
Macaroni.....	75,000 pounds.....	do.....	699
Milk, condensed.....	100,000 pounds.....	do.....	699
Milk, evaporated.....	130,000 pounds.....	do.....	699
Pears, tinned.....	40,000 pounds.....	do.....	699
Peaches, tinned.....	80,000 pounds.....	do.....	699
Peaches, evaporated.....	20,000 pounds.....	do.....	699
Pickles.....	50,000 pounds.....	do.....	699
Pork, salt.....	250,000 pounds.....	do.....	699
Pepper.....	9,000 pounds.....	do.....	699
Peas, tinned.....	150,000 pounds.....	do.....	699
Prunes.....	55,000 pounds.....	do.....	699
Rice.....	160,000 pounds.....	do.....	699
Raisins.....	20,000 pounds.....	do.....	699
Salt.....	70,000 pounds.....	do.....	699
Salmon, canned.....	120,000 pounds.....	do.....	699
Sirup.....	12,000 gallons.....	do.....	699
Sugar.....	700,000 pounds.....	do.....	699
Tomatoes, tinned.....	300,000 pounds.....	do.....	699
Tea.....	35,000 pounds.....	do.....	699
Vinegar.....	7,000 gallons.....	do.....	699

January 14, 1908.

**STATEMENT OF REAR-ADMIRAL EUSTACE B. ROGERS, U. S. NAVY,
PAYMASTER-GENERAL OF THE NAVY.**

Admiral ROGERS. The interest, Mr. Chairman, that I have in this matter, is that Admiral Mason has the disposition of this powder and the care of it in the magazines; but I am the unfortunate individual who has to account to Congress for its value, and I am simply driven wild on the subject at the end of each month. The Bureau of Supplies and Accounts is directed to and does report to each bureau, monthly, within the first five days after the end of the previous month, the balances on hand of the appropriations under the various bureaus of the Navy Department, and it reports to the Secretary of the Navy the balance on hand of all naval appropriations. The practice has been, on the part of the Bureau of Ordnance and the Bureau of Supplies and Accounts, when ammunition was needed for old ships that was not on hand under the appropriation for O. & O., to transfer the ammunition from increase of the Navy, armor and armament, debiting O. & O. and crediting increase of the Navy.

Mr. MUDD. What is "O. & O.?"

Admiral ROGERS. Ordnance and ordnance stores. This was a transfer on the books both of material and of money value thereof. Suppose a transfer was made on the 28th or 29th of the month, as actually occurred in one case, of nearly \$100,000 worth of ammunition from the increase of the Navy stock at Mare Island to be charged to the appropriation O. & O. for shipment to Cavite. I made a report to the Bureau of Ordnance on the 2d or 3d of the month that such and such transfers between increase of the Navy and ordnance and ordnance stores had been made during the month, and I left out this transfer which actually took place, if I remember correctly, on the 29th of the month. Then the Chief of the Bureau of Ordnance would have the official statement from the Bureau of Supplies and Accounts that he actually had on hand, under the appropriation O. & O., nearly \$100,000 more than he really had. The consequence of this was (and this has occurred since I have been paymaster-general) that I now have all transfers of ordnance material between increase of the Navy and O. & O. reported to me by wire, so that I may make the account more accurate; but even then, if the transfer was made within the last two or three days of the month we might not get notice of it; and there have been several cases where I have innocently misled the Bureau of Ordnance because I did not receive this information.

I want to give correct information. This is all ammunition. It all belongs to the United States. It is all intended to be used; and we have three ammunition accounts. And I want next year, as Admiral Mason said at the close of his testimony, to present to you, with his concurrence, a scheme for consolidating these three accounts. It is an impossibility for me or for him to keep one article bought under three appropriations separated in the magazines, also in the accounts of the issuing officers at the yard based upon the reports from those magazines, to keep O. & O. separate from increase of the Navy, and keep both of those separate from the reserve ammunition. That is a common-sense business proposition.

Mr. TALBOTT. Then you have the three accounts—armor and armament, increase of the Navy, and ordinance and ordinance stores?

Admiral ROGERS. For the same thing, sir.

The CHAIRMAN. You want to have them all under what head?

Admiral ROGERS. Admiral Mason and I have only sketched the matter out. We would not want to give you an immature plan; we would rather give you a complete plan which would accord with what we know to be the sentiment of the committee and of Congress and which will at the same time lighten our burden in the matter.

The CHAIRMAN. Now, just a statement on this matter of unused stores.

Mr. LOUDENSLAGER. Mr. Chairman, I would like to ask the Admiral a question on this very matter.

The CHAIRMAN. Very well.

Mr. LOUDENSLAGER. Our action should be taken also for the stores on hand, should it not?

Admiral ROGERS. Do you mean with regard to my last statement as to consolidating the ammunition accounts?

Mr. LOUDENSLAGER. Yes; not only the future, but all that is on hand?

Admiral ROGERS. Your action would be necessary, sir; we could not do it without it.

Mr. LOUDENSLAGER. I say, you would want to have it cover this as well as all future matters?

Admiral ROGERS. Yes, sir; what is true in this case is equally true in almost everything that we buy. I touched upon this in my previous hearing before you. If an article is bought under an appropriation, and that article is limited to the absolute purposes of that appropriation (as all purchases under increase of the Navy are), it multiplies very greatly the storekeeping accounts; and consequent upon that, of course, is more clerk hire, more books, more time, more money, and more cost. It is a business proposition, therefore, to put all these items under one account; and some day, if nothing happens, I will come to this committee with a matured plan, year by year trying to eliminate these duplications all through the service, of which we in the Bureau of Supplies and Accounts, being the account-keeping bureau not only in Washington but through every yard and station in the world where the Navy has a holding, are the storekeepers and the accountants; and we can save a great deal.

Admiral Mason, I am very sure, will support me thoroughly in this statement.

Admiral MASON. Yes.

Admiral ROGERS. I want to say once more that there is no difference of opinion between the Bureau of Supplies and Accounts and any other Bureau of the Navy Department. We are all working together for the common good of the entire service which is dear to every one of us, and if I can not persuade Admiral Mason to take my point of view there is always a middle ground to be found that will be equitable to both of us. He will tell you that that is the principle upon which we are acting.

Admiral MASON. That is so.

The CHAIRMAN. As I understand, Paymaster-General, you are making an inventory of all the stores in all the storehouses in the different navy-yards?

Admiral ROGERS. We have made the inventory, sir, in Boston, League Island, Puget Sound, Mare Island, and Portsmouth. We are now conducting one in New York, Norfolk, and I think one in Cavite—that is, I think the Cavite inventory is not finished yet.

The CHAIRMAN. When will you probably finish it, so as to make a full report?

Admiral ROGERS. By the next meeting of Congress, sir, to a certainty.

Mr. LOUDENSLAGER. Will your inventory show the value of the useless things that are on hand?

Admiral ROGERS. I trust, sir, that by the next meeting of Congress there will be no useless things on hand. I hope they will all be gone.

Mr. LOUDENSLAGER. They will all be destroyed?

Admiral ROGERS. I hope they will all be sold.

Mr. LOUDENSLAGER. And what can not be sold will be destroyed?

Admiral ROGERS. There is very little that needs destroying, except provisions, which when old are apt to be deleterious to health. Almost everything we have has some value. The proceeds of these sales do not go to the naval appropriation. They go into miscellaneous receipts, with the exceptions of sales of clothing, which go to the clothing and store fund, and sales of ordnance material to the value of \$70,000 a year.

Mr. LOUD. What proportion of your supplies on hand do you estimate will have to be sold?

Admiral ROGERS. I think, sir, about \$3,000,000 is probably the book value of the obsolete material; and I base that upon my experience at the navy-yard, Boston. There was taken there in 1906 a very complete inventory; and I found that the obsolete material was valued at about \$400,000, which was then about 10 per cent of the total stock in hand.

Mr. LOUD. As to the system of purchase for the different yards, when goods are required and requisition is made does that requisition pass up through your office here at Washington before the goods are purchased?

Admiral ROGERS. All of them do, sir.

Mr. LOUD. And in that case, if the goods asked for are a surplus in some other yard, is that surplus then used, instead of buying new goods?

Admiral ROGERS. Whenever it is possible; yes. It is done very frequently.

Mr. LOUD. A little case in point, while a trivial one, may perhaps be indicative of larger matters. If, for instance, a requisition was made for a carload of one size of clout nails, to be used in a boat factory at one of your yards, the order being an excessively large one, evidently the result of a mistake on the part of the party making it, and the requisition was filled and the goods arrived at the yard, what would be done with that surplus, when the order would be, perhaps, fifty times what was required?

Admiral ROGERS. I scarcely think it is necessary, sir, to answer that question, for the reason that no such mistake could occur.

Mr. LOUD. I happened to hear of that precise case, where a carload of nails was ordered; and while I can not give the size exactly, it was a carload of nails of a special kind, ordered for one of the yards.

Admiral ROGERS. How long ago was that, sir?

Mr. LOUD. Not long; I can not give the exact time, but it was not very long ago—perhaps two or three years. One of the largest houses in New York refused to bid, knowing that it was a mistake.

Admiral ROGERS. I would like very much to know where that occurred.

Mr. LOUD. I will follow it up, and get more definite information upon the point from the man who went to get the voucher for the shipment, and obtained the voucher.

Admiral ROGERS. I am perfectly earnest in my statement, sir, that I do not think such a thing could be possible now.

Mr. LOUD. I was curious to know what would become, in that case, of a large surplus of that kind. Would it be available to go to other yards requiring the same character of goods, or would it remain there, stagnant, as an oversupply of something unnecessary?

Admiral ROGERS. No, sir; it would be distributed to other yards.

Mr. LOUD. That is the point exactly.

Mr. MUDD. That particular case ought to be looked into, if you have any knowledge of that kind.

Mr. LOUD. I am looking into it now; but when I have the definite information I will not have an opportunity to ask the Admiral about it. It is a matter, Admiral, which would not pertain to your incumbency in office; it would be something handed down from a preceding administration.

Admiral ROGERS. The reason I say, Mr. Loud, that I think such a thing would be impossible is this: Such a requisition as that would pass, we will say, through the Chief Constructor of the Navy; and I know him to be exceedingly careful in approving requisitions. If he passed a requisition of that kind, attention would immediately be called to it in my Bureau, and I would ask him if there was not some mistake; and if he then, after the matter had been called to his attention, said that they wanted a carload, I would raise no further question. I can give you one example that occurred just the other day. A requisition was made for ten thousand when one thousand was needed.

Mr. LOUD. Exactly.

Admiral ROGERS. But it was caught up immediately.

Mr. LOUD. But in the case of a small item, such as I mentioned, it might pass without notice, perhaps.

Admiral ROGERS. But it would not be a carload; that would be about 35,000 pounds.

Mr. LOUD. Yes.

Admiral ROGERS. It would not be enumerated as a carload; it would be so many thousand pounds of such-and-such nails.

Mr. LOUD. In the case of a large business institution, such as the American Steel Company or the American Ship Building Company, having branches in different cities, if you go to the sales department to purchase any item they will ship it to you from one city or one plant, or another plant at some other point, or some other point, as it is found in stock. Does the same system prevail in the Navy?

Admiral ROGERS. It does, sir.

Mr. LOUD. An inventory of each navy-yard is kept at your office?

Admiral ROGERS. No; but I can give you two or three examples from actual practice.

Mr. LOUD. When you tell us, now, that you are just making the inventory for the first time, how can there be an inventory at your office?

Admiral ROGERS. The inventory is kept at the yard.

Mr. LOUD. But we have been told in previous hearings that there was no inventory.

Admiral ROGERS. That was several years ago, I think.

Mr. LOUD. Not several, but only two or three. Still, that is very nearly the same thing.

Admiral ROGERS. The first complete inventory was made two years ago.

Mr. LOUD. Then that would certainly show where the trouble arises, or where there is duplication, would it not?

Admiral ROGERS. Partly so; yes, sir.

Mr. LOUD. It would be enormously so, I should judge, if no inventory was held where one yard could find out where a surplus could be obtained from another. That could only be obtained by an inventory.

Admiral ROGERS. Yes; but the stocks are there, sir. For instance, four months ago a requisition came from a yard containing about 2,000 items. About 1,300 of those were purchased; all the rest were shipped from other yards.

Mr. LOUD. That shows a very great improvement, then.

Admiral ROGERS. In another case a schedule was issued for some thousands of pounds of curled hair for making mattresses. The schedule was canceled, and the curled hair was shipped from New York. In another schedule, about the same date—these are actual incidents I am using—the Bureau of Steam Engineering made a requisition for some *lignum-vitæ* to be shipped to Cavite. We found that we had 30,000 pounds of it at Portsmouth, N. H., and the requisition was filled by shipment from Portsmouth to Cavite. Those things are occurring every day.

Mr. LOUD. If any bureau requires special supplies—for instance, if the Bureau of Equipment should call for 50 sides of leather, or 100 coils of copper wire, and should use 75 per cent and find they had 25 per cent left over, would the 25 per cent revert back to the storehouse again?

Admiral ROGERS. It would remain in the storehouse.

Mr. LOUD. Or would it remain in the Bureau of Equipment?

Admiral ROGERS. No, sir; it would remain in the custody of the Bureau of Equipment until the expiration of the appropriation under which that leather or wire was purchased—that is, the 30th of the June following its purchase.

Mr. LOUD. And then it would revert to the storehouse or be sold?

Admiral ROGERS. It would revert to the storehouse and become part of its common, general stock, subject to the requisition of any bureau. That was the fact up to the 1st of last July. Now it would not; it would now go to the naval supply fund.

Mr. PADGETT. The naval supply fund is simply a general fund that is equivalent to the other, is it not?

Admiral ROGERS. The naval supply fund is made up of a series of appropriations by Congress which amount to \$2,700,000; and it is designed for the purchase of ordinary commercial stores. We do not attempt to purchase special stores from it, and never have. It is carried as a separate account in the yards; and when any bureau or any

yard department requires any article, it makes a requisition on the naval supply fund, and the appropriation of that bureau is charged with the cost of that article, and the naval supply fund is credited, keeping the \$2,700,000 intact in money and stock.

Mr. LOUD. Admiral, may I ask you again if each yard is entirely independent as to stores from every other yard; or is one yard considered as a central or larger plant from which the small yards draw supplies?

Admiral ROGERS. The New York yard is the central yard on the Atlantic and the Mare Island yard is the central yard on the Pacific. The New York yard shipped during the last fiscal year to all parts of the world, and to ships and stations, over 400,000 packages, aggregating from 25,000 to 30,000 tons.

Mr. LOUD. That was the point; but in the case of the minor yards, would it not be possible to carry much smaller stocks of supplies with the large or parent plant at New York always ready to draw from, to keep from carrying large stocks of, perhaps, unusual items? Would it not be easy to reduce the stores kept in the smaller yards with that system more elaborated, or carried into more complete effect?

Admiral ROGERS. I think that has been the tendency for many years past; and I have tried and am trying to reduce the stocks as much as possible at these lesser yards.

Mr. LOUD. Without inventories, as in the past, it would seem to a man of business mind that any such scheme as that would be absolutely impossible; but at the present time you seem to be working in a much more reasonable way.

Admiral ROGERS. I think that possibly there is a misapprehension on that matter, sir. There has been no time within reasonable limits when we have not been able to tell what was at any given yard by simply communicating with it, if we had any doubt in the matter. To this day we keep no inventory in Washington of the stores that are at the different yards. It would be physically impossible. It would be too great an undertaking, and it would not be worth the money it would cost. If we know, we simply know in general terms that such and such a yard is well stocked with such and such an article; and we would wire them for further information.

Mr. LOUD. Would there be such a thing as keeping an inventory of excess items which may accumulate in the various yards?

Admiral ROGERS. We hope, sir, that before very many years there will be no excess items. That is our present aim.

The CHAIRMAN. Is it not a fact that we are keeping in the storehouses a large amount of articles that you could go right out and buy in the open market at any time and ship direct to the ship, and it would cost the Government less than going out and buying a great number of those articles and putting them in a storehouse building and maintaining a storehouse for them and then shipping them to the ship or to the station afterwards? In other words, are there not a good many articles that you can always get which it would be much better for you to buy right in the open market when you want them than to store them in these storehouses?

Admiral ROGERS. Do you think, sir, that a great manufacturing concern like the Cramp Shipbuilding Company, the Newport News Shipbuilding Company, or the Pennsylvania Railroad Company, would do that?

The CHAIRMAN. I do not know what their custom is or what they would do.

Mr. LOUD. To a certain extent, yes.

Mr. LOUDENSLAGER. Do they not do it in a large number of instances, Paymaster?

Admiral ROGERS. We do it in a large number of instances.

Mr. LOUDENSLAGER. Take the Pennsylvania Railroad in the matter of its coal. It has its coal delivered about as it needs it. It makes its contracts, however, for the whole year.

Admiral ROGERS. We do the same thing, sir.

Mr. LOUDENSLAGER. And in the matter of canned goods, I know mercantile houses in Philadelphia that make contracts for 10,000 cases of tomatoes to be delivered whenever called on.

Admiral ROGERS. We do the same thing, sir; and once or twice, where our contract was larger than the capacity of the storehouse, it has happened that instead of having the articles delivered at New York, for instance, where we will say the contract called for delivery, we would have 30,000 or 40,000 pounds shipped to Boston or to Norfolk direct from the cannery.

Mr. MUDD. Admiral, is the theory upon which you buy those excess articles in any case based upon the hypothesis that you can buy more cheaply by getting larger quantities?

Admiral ROGERS. Yes. Some of our purchases in the past have been very large, sir. The entire tendency of every bureau in the Navy Department now is to buy in small quantities, and to do the best we can to reduce our stock on hand. A number of influences have brought this about. Transportation, for instance, is much cheaper and much easier to-day than it was ten years ago. In many cases we do not have to carry such large stocks. Then the inauguration of the naval-supply fund fifteen years ago has been a very great boon to all of the Departments, in saving them the purchase of large stocks; because there is not a single yard where the naval-supply fund exists that has not turned over at least 150 per cent of the money which was the capital of that particular yard. I mean the stock was once and a half used and sometimes more in a single year. Now, that does not mean large purchases; that means small purchases quickly turned over.

Mr. LOUD. When we were at the Norfolk yard, I think, they asked for a new oil house, to cost, I think, \$60,000.

Admiral ROGERS. I think that has been reduced to \$40,000.

Mr. LOUD. And I think that at the League Island Navy-Yard they asked for a new storehouse for stores at a cost of about \$400,000—if my memory is correct as to the particular yard that asked for it.

Admiral ROGERS. I do not think that will come before your committee, sir; because, if your memory is correct, it has been cut out.

Mr. LOUD. They gave one the impression that instead of contracting stores there was an expanding of stores.

Admiral ROGERS. We did ask for a large storehouse at Norfolk, to cost \$450,000, at the rate of \$150,000 a year. It may be that you are thinking of that.

Mr. LOUD. Perhaps so; I will not be sure which yard it was.

Admiral ROGERS. The Norfolk Navy-Yard is in the worst condition of any yard in the country. It has been neglected. Their

storehouses are old and in very bad condition; and they certainly need a new storehouse.

Mr. LOUD. Under what division in a yard does the matter of boat building come?

Admiral ROGERS. Construction.

Mr. LOUD. You are called upon to furnish the material for all of that manufacturing, are you not?

Admiral ROGERS. Yes, sir.

Mr. LOUD. Would it not be far easier and far more economical for you to purchase supplies and material for that particular line of manufacture if it were to be centralized in one yard, and all the boats were built in one larger factory, instead of separating your supplies in six or eight different manufactories? Would it not be much more economical and much more of a business proposition to centralize them in one factory?

Admiral ROGERS. Well, you see, Mr. Loud, you are getting on a proposition that I really do not know about. The Chief Constructor has charge of that branch of the work.

Mr. LOUD. I do not mean the building of boats; I mean as far as the buying of supplies is concerned.

Admiral ROGERS. The Chief Constructor could tell you why they build boats at Portsmouth and New York and elsewhere.

Mr. LOUD. I do not mean that. I mean so far as the purchase of supplies is concerned.

Admiral ROGERS. There is no question about that, sir.

Mr. LOUD. That is all.

The CHAIRMAN. Paymaster-General, we will take the case of an article of which the Navy uses a thousand a year, or two thousand every year, or five thousand. Could you not make a contract with a manufacturer of those articles to deliver them whenever you want them delivered in the course of a year, and let the manufacturer be the storehouse? Could you not let him keep those articles and ship them whenever you wanted them shipped and wherever you wanted them shipped, instead of buying the articles, we may say, at the beginning of the year, shipping them to your storehouse in New York, or some other storehouse, be put to the expense of maintaining them, and then ship them wherever you wanted them at different times in the course of the year?

Admiral ROGERS. As a particular proposition, and covering special articles, yes, sir; and it is done. As a general proposition, covering general articles, no, sir; it would be unsafe where the market is changing. I can give you one single example of that which, I think, will answer your question.

There was some difficulty several years ago with the requisitions from the Navy-Yard in Washington (and Admiral Mason knows about this) because they had a hurry order for some copper or some other metal. It went to the Secretary of the Navy for approval, because it involved quite a large amount, and there was not time for it to be advertised, and a contract therefore could not be made. The consequence was that the Paymaster-General was directed to make a yearly contract for all of the metals—tin, copper, zinc, etc.—used at this great ordnance-manufacturing yard. When the present Paymaster-General came into office he found this contract running, with (if I remember correctly) a contract price of about 16 cents and the

market price 19 cents. The trouble with that contractor you can imagine without any description on my part. When the following June came around I followed the practice and issued advertisements for a year's supply. In the meantime these metals had gone up. Among other things, copper was 21½ cents; and that was the lowest bid for the supply of copper for Washington and other yards under the bids opened about the first of last July. In the meantime, of course, I had had time to think of this, and I saw that it was a pure gamble both on the part of the Government and on the part of the contractor, and I refused to accept any of those bids, and we advertised for a quarterly supply. The first quarter's order was placed at about 21 cents, but we are now buying copper at 13½ to 14 cents. Where would the Navy Department have been if I had made an annual contract for copper last July in accordance with existing practices and the then condition of the metal market? I would have deserved to have been court-martialed for making such a contract.

Apply the case of copper to many commercial things that are varying in price: For instance, we do make an annual contract for shellac. The crop is marketed at one time. The annual supply leaves Calcutta practically within a few weeks. We advertise for shellac for the entire year, all at one advertisement, because we can do it safely. We advertise for almost all of our provisions in the same way, because the prices do not materially vary. We do not advertise, though, for canned goods more frequently than once in six months; and I am a little doubtful even about that. There are, however, many commercial articles for which we have semiannual contracts.

So, to answer your question, I would say this: Where it is possible, in our judgment, to advertise for yearly contracts, we are doing so, and extending it just as much as we can. Where the condition of the market is such that it would be unsafe, and the Government had better wait and see what the market prices are, we are not doing it, and will not.

I think that is the business way to handle it. That is the way it strikes me.

The CHAIRMAN. You say you are making these yearly contracts. Do you buy the goods right out and ship them to the warehouse?

Admiral ROGERS. We do just what you describe, sir—make a contract for goods to be delivered on ten or twenty or thirty days' notice.

The CHAIRMAN. You let the manufacturer hold them?

Admiral ROGERS. We let the manufacturer hold them, to be delivered on timely notice. We are trying to extend that system, Mr. Chairman, as much as we possibly can, and very largely for the reasons you state.

The CHAIRMAN. Are there any further questions, gentlemen? If not, we are very much obliged to you, Admiral, for coming up. Have you anything further to say?

Admiral ROGERS. Yes, sir; I have.

During my previous hearing Mr. Butler asked me what was the value of stores of all kinds on hand at that time. I picked up a copy of the Paymaster-General's report and read the right-hand page instead of the left-hand page, and in that way misled him. I told him about \$41,000,000. As a matter of fact, it is \$58,673,841.21. This sum I have put in my original hearing. It is there now. I said to you over the telephone yesterday morning, however, that had I

given that answer I am very sure some questions would have been asked me, and I did not care to leave it "in the air" in that way. If the committee have any questions to ask me as to that change, I would like to answer them.

The CHAIRMAN. What is that made up of?

Admiral ROGERS. That is made up—I will give round numbers instead of going down to the cents—of \$32,600,000 of common, general stock, which I talked to you about a good deal the other day; \$24,180,000 increase of the Navy stock; and \$1,874,000 naval supply fund stock.

The CHAIRMAN. The increase of the Navy stock, I understand, you are using in the construction of ships right along, every day?

Admiral ROGERS. Only the new ships.

Mr. LOUD. How about ordnance? What share of that is ordnance, if any?

Admiral ROGERS. About that I can only give you an estimate, sir. I have promised to bring that report in next year, and I am going to do it.

Mr. LOUD. That is all.

Admiral ROGERS. That total of \$58,000,000 is in round numbers; and this is merely an estimate, because I am free to confess that I have no accurate notes here which I can give you. Ammunition—which includes powder, projectiles, fuses; that is, what is shot away in a gun—\$17,000,000. This is on shore, not on ships. Ordnance stores—that is, all guns that are in store, and the special ordnance, spare parts, arms, and everything of that sort outside of ammunition—\$5,000,000. Fuel, about \$2,000,000. Boats, rafts, etc., about \$3,000,000. Anchors, etc., about \$1,000,000. That may be incorrect.

The CHAIRMAN. Is that a part of the \$32,000,000?

Admiral ROGERS. That is part of the \$58,000,000, and general stores about \$30,000,000. The total of these figures is \$58,000,000.

Mr. PADGETT. What is "general stores" made up of? What are the constituent items of that general heading?

Admiral ROGERS. They are everything that is used by the Navy of every kind, except those items that I have enumerated—that is, except ammunition, fuel, special ordnance stores, boats, anchors, and chain.

Mr. PADGETT. In "general stores" there is not comprehended any powder, ammunition, etc.?

Admiral ROGERS. Oh, no, sir; it is only stores other than those enumerated.

Mr. PADGETT. I see. Now, one other question: You stated a moment ago that your figures were exclusive of the amount of powder and projectiles aboard ship?

Admiral ROGERS. Yes, sir.

Mr. PADGETT. What is the estimate of the value of the ammunition, projectiles, powder, etc., aboard ship?

Admiral ROGERS. About \$10,000,000.

Mr. PADGETT. So that would make \$68,000,000, if \$10,000,000 were added to it?

Admiral ROGERS. It would be added to the \$17,000,000 that I have said was the value of the ammunition ashore. That would make about \$27,000,000 worth of ammunition owned by the Navy, afloat

and ashore. The figures I have given relate only to supplies in store, that is, ashore.

Mr. OLCOTT. Admiral, will you tell me whether that \$58,000,000 includes the value of the materials that you said were practically useless now?

Admiral ROGERS. Yes, sir; it includes everything the Navy owns—that is, in the way of stores ashore.

Mr. OLCOTT. Then are these the figures of cost price?

Admiral ROGERS. Cost price; yes, sir.

Mr. OLCOTT. Consequently, if we were to sell out, we would not get anything like \$78,000,000?

Admiral ROGERS. Oh, no, sir. Now, if the committee will bear with me a minute, I would like to explain that this is not so terrible as it seems. I am perfectly willing to confess, frankly, that we have entirely too many stores. I have also, in my personal conversations previously with Mr. Foss and in the hearings before the committee, expressed my wish and intention to reduce that surplus; and I would like the committee to clearly understand what I am going to state now about our stores accounts.

Our system of accounts is a double-entry system—that is, the accounts of the naval establishment. Every receipt is entered as a debit in one account and a credit to the other. Every article, absolutely without exception, that comes into a navy-yard, bought by a naval appropriation—this is exclusive of ships being built by contract at private yards—goes into one single account, which is called "Title X, Supplies in store." That title has four separate subaccounts—Account A, or Common, General Stock; Account B, or Increase of the Navy Stock; Account C, Naval Supply Fund Stock, and Account D, Condemned Stock. The latter consists of articles that have been surveyed and recommended for sale, and are carried in this little account before they are sold to bidders; but Account D may be left out, as it is always very small.

Every article of any kind that goes on a ship is entered in this big title, the total of which is the \$58,000,000 that I gave you. That includes boats, steam launches, armor, guns, and everything we call supplies. So that when I say "stores," I mean something more than a barrel of nails or a paper of tacks. I mean, for instance, an armor plate that may be worth \$20,000. And when you come to examine this amount it is not remarkable that it is so large, because it is the entire property of the Navy, with the single exception of ships and boilers—I mean the entire property ashore.

When a ship is commissioned everything that she takes on board, with the exception of the ship as she floats in the water—every particle of anchors, chains, boats, furniture (I will not enumerate the thousand things she takes)—comes from this Title X. It goes on board ship to two more titles—Title B, Equipage (which means furniture, boats, instruments—articles, in other words, that can not be expended without a survey and without authority), and Title Y, Supplies as separate from equipage, which means ordinary stores, paints, oils, tacks, hails, and things of that kind, which can be expended at the direction of the officer who has them in charge for use.

I wanted you to understand what this Title X comprehends. It is something more than mere ordinary stores of naval supplies in the

common acceptance of the word. It is the entire property of the United States Navy which is used on ships or which is used by the manufacturing department requiring it and is stored at yards and stations. It does not include the machinery which is installed in a manufacturing department of the yard. It does not include any of the appurtenances of a dry-dock; and yet it might include a lathe or a machine which might be required by one of those departments if it was so carried in this account pending transfer to that department. And in this stores account this \$58,000,000 is the entire equipage of all new ships that are being prepared for commission. There are about six or seven battle ships in that stage now, and you can very easily see that their furniture and all their equipage is very valuable. All of that, for six or seven battle ships, is carried in this \$58,000,000, as well as their supplies when purchased.

Mr. PADGETT. Under the subhead of general stores?

Admiral ROGERS. Under the subheads of both "Increase of the Navy, Account B," and "General Stock, Account A;" and it is so carried until the ship goes into commission. Then it goes out of this Title X, with these subaccounts, to Title B, "Equipage," and Title Y, "Supplies Afloat;" and it is so carried and so included in the expense of the ship.

Mr. PADGETT. After it is put on the ship it does not constitute any longer a part of that \$58,000,000?

Admiral ROGERS. No, sir.

Mr. PADGETT. It goes out?

Admiral ROGERS. Yes, sir.

Mr. LOUDENSLAGER. Admiral, how much of this \$58,000,000, in your judgment, is useless, obsolete?

Admiral ROGERS. About 10 per cent, sir.

Mr. LOUDENSLAGER. About 10 per cent?

Admiral ROGERS. Yes, sir. When I say "useless," I mean absolutely useless, perfectly worthless for naval purposes.

The CHAIRMAN. It is the accumulation of years, is it?

Admiral ROGERS. Yes, sir; the accumulation of years.

Mr. LOUDENSLAGER. Some of it of fifty-odd years?

Admiral ROGERS. Some of it is the accumulation of fifty-odd years.

Mr. LOUD. Would that include ammunition, armor, and those articles of equipment which you have spoken of?

Admiral ROGERS. You mean this \$58,000,000?

Mr. LOUD. This \$10,000,000 of useless material. Would that be—

The CHAIRMAN. Not ten million; 10 per cent.

Admiral ROGERS. No; 10 per cent of the total value. And let me correct that, sir—10 per cent of the total value of common stock. That is about \$3,200,000. Not 10 per cent of the total—oh, no; because increase of the navy stock and naval supply fund stock are new material, and it is the common stock which contains all the old material.

Mr. LOUDENSLAGER. Does the common stock take in the value of the powder?

Admiral ROGERS. Part of it; yes, sir. Old ammunition is in it.

Mr. LOUDENSLAGER. Old ammunition?

Admiral ROGERS. Yes, sir.

Mr. LOUDENSLAGER. And the useless ammunition is in it?

Admiral ROGERS. No, not useless; not of necessity. Some of the useless ammunition might be in "Increase of the navy stock."

Mr. LOUDENSLAGER. That is what I am trying to find out—whether it is 10 per cent of the \$58,000,000 or 10 per cent of the \$35,000,000 or 10 per cent of the \$32,000,000.

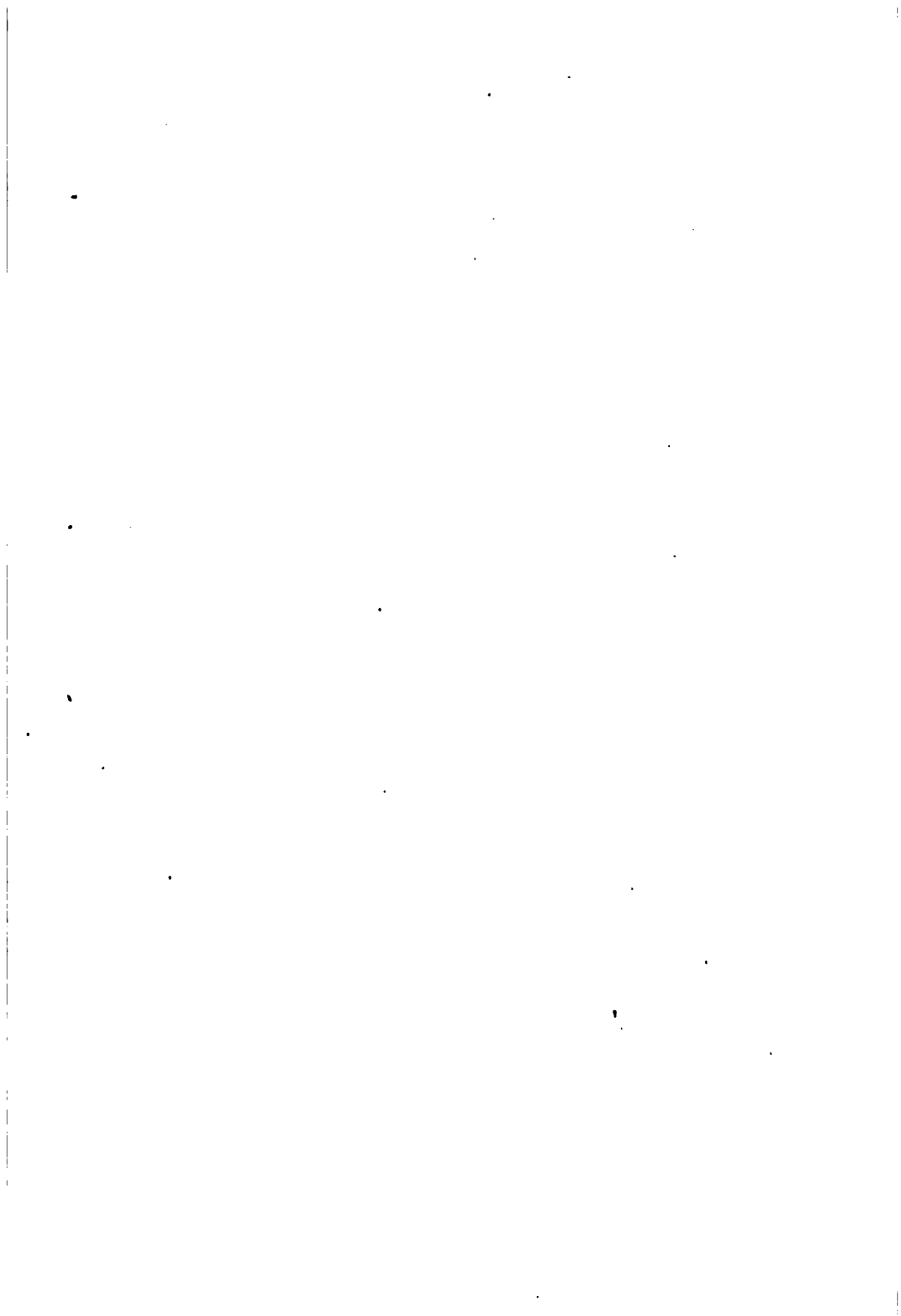
Admiral ROGERS. It is about 10 per cent of the \$32,000,000. Admiral Mason has told you this morning about the useless ammunition. How much of that is in common stock and how much in increase of the navy stock I do not know.

Mr. LOUDENSLAGER. That we can not define.

The CHAIRMAN. Are there any further questions, gentlemen, or have you anything further, Admiral?

Admiral ROGERS. Nothing more, sir.

The CHAIRMAN. All right. We are very much obliged to you.



[No. 3.]

COMMITTEE ON NAVAL AFFAIRS.

Thursday, January 9, 1908.

The committee this day met, Hon. George E. Foss in the chair.

STATEMENT OF REAR-ADMIRAL N. E. MASON, CHIEF, BUREAU OF
ORDNANCE.

The CHAIRMAN. The first item is on page 21 of the bill, Bureau of Ordnance.

Ordnance and ordnance stores: For procuring, producing, preserving, and handling ordnance material; for the armament of ships; fuel, material, labor, and so forth. You ask for \$4,500,000, or an increase of \$500,000. Please explain the necessity for that increase.

Admiral MASON. This working appropriation of the Bureau of Ordnance has been itemized, as directed by the Navy Department in its circular letter of July 1, as follows:

(a) For procuring, producing, preserving, and handling ordnance material. (Note.—This item is embraced in (b) and (c), being simply part of the definition of the use of the appropriation.)	
(b) For the armament of ships-----	\$154, 735. 00
(c) For fuel, material, and labor to be used in the general work of the Ordnance Department, exclusive of watchmen and maintenance of the naval proving ground and powder factory-----	2, 443, 492. 00
(d) For watchmen at magazines, powder factories, and powder depots-----	37, 442. 00
(e) For furniture in ordnance buildings at navy-yards and stations-----	1, 221. 00
(f) For maintenance of proving ground and powder factory----	71, 281. 00
(g) For target practice-----	1, 791, 829. 00
Total-----	4, 500, 000. 00

It is pointed out that the estimated amount set opposite each item as a possible expenditure is only approximate, and liable to be increased or diminished by unforeseen contingencies; and also that the aggregate amount appropriated for several purposes may be in fact differently distributed among them. For instance, the expressions "for procuring, producing, preserving, and handling ordnance material;" "for the armament of ships;" "for fuel, material, and labor to be used in the general work of the Ordnance Department;" "for maintenance of the proving ground and powder factory," and "for target practice" have practically the same meaning, labor and material being used for all in an increased or diminished amount as occasion may demand.

The appropriations under this head for the past seven years have been as follows:

1901-2.....	\$500, 000	
Deficiency.....	300, 000	
Total.....		\$800, 000
1902-3.....	800, 000	
Deficiency.....	500, 000	
Total.....		1, 300, 000
1903-4.....		1, 500, 000
1904-5.....	2, 000, 000	
Deficiency.....	500, 000	
Total.....		2, 500, 000
1905-6.....		3, 000, 000
1906-7.....		3, 500, 000
1907-8.....		4, 000, 000

The Bureau has increased its estimates under this head by \$500,000, making a total of \$4,500,000, as above stated.

The Bureau has done this under the assumption that there will be in full or partial commission during the fiscal year 1908-9, 24 battle ships, 12 first-class cruisers, 66 second and third rate vessels, 60 torpedo vessels, and 15 auxiliaries, making a total of 177 vessels.

This represents an increase of 38 vessels over the fiscal year 1906-7, 5 of which are battle ships, 2 first-class cruisers, 9 second and third rate vessels, and 22 torpedo vessels.

The Bureau has also increased its estimates for target practice over last year by \$147,659, as it is absolutely necessary to provide for the additional vessels above mentioned. The increase over that previously asked is due to the increase in the number and size of vessels which will be engaged in target practice.

"Ordnance and ordnance stores" is a general appropriation for carrying on all the work of the Ordnance Department of any kind, except that for vessels under construction, or for purposes otherwise especially appropriated for. It includes all work at navy-yards, magazines, and naval proving grounds; all material and labor necessary for the care and preservation of ordnance stores on shore and afloat; furniture in ordnance buildings at navy-yards and in magazines and stations; labor, watchmen, fuel, tools, and a great variety of miscellaneous items not otherwise provided for.

The expenses under this working appropriation of the Bureau necessarily increase with every ship added to the Navy, and the amount asked for is believed to be the minimum consistent with efficiency and safety.

The CHAIRMAN. Are you asking for a deficiency this year under this appropriation?

Admiral MASON. No, sir.

The CHAIRMAN. Was there any unexpended balance at the end of the fiscal year?

Admiral MASON. No, sir; we had to struggle hard at the end of the year to prevent a deficiency, and we did come out even, but only through great care and in one or two cases by transferring small contracts to other appropriations, from which the articles could be legally purchased.

The CHAIRMAN. Do you think we can safely reduce this amount at all?

Admiral MASON. No, sir; I think that we are down to the very lowest notch. We are running things as economically as we can, and if anything it should be increased. But I cut it to the lowest point possible.

Mr. ROBERTS. Under that wording: "For procuring, producing, preserving," you can purchase powder. or buy the material with which to manufacture it?

Admiral MASON. Yes, sir. That first clause was put in there at the request of the Department, and I think by Admiral Sicard, a number of years ago. It was the intention then to make it cover almost everything in ordnance.

Mr. ROBERTS. Then it is under those words that you buy material, make contracts, etc.?

Admiral MASON. Yes, sir; under that wording we buy almost anything for maintenance after vessels are completed.

Mr. LOUDENSLAGER. Would not the wording of that second item be covered in the first also?

Admiral MASON. Excepting that the Bureau wishes to emphasize to the committee the necessity. If we put that in the regular working appropriation it would require an explanation to show the necessity for this ammunition, which, of course, would be variable according to the number of ships we have. As a matter of fact, when it comes to the Treasury Department I think all of these subitems or subheads are lumped under the appropriation for "Ordnance and ordnance stores." But it is put this way in order to be as plain as possible as to how the money is used.

The CHAIRMAN. As to this proviso: "That no part of this appropriation shall be expended for the purchase of shells or projectiles except for shells or projectiles purchased in accordance with the terms and conditions of proposals," etc.; that was put in there by the House, but in the estimates which are submitted the language is stricken out. Has the Department any objection to that proviso?

Admiral MASON. The same objection that we had two years ago. We are still in trouble as regards armor-piercing projectiles; that is, we are unable to get away from one firm. They not only furnish the best projectiles, but they underbid other firms every time. If this proviso was out, we could probably, by giving small orders to large, reputable firms that would be willing to go into the business, get them to educate themselves up to the point of manufacturing armor-piercing projectiles, so that eventually they would be in a condition to furnish as good material as the one firm that now has practically all of that business.

The CHAIRMAN. Does not that proviso give encouragement to everybody?

Admiral MASON. We advertise for projectiles, and then we are compelled to take the lowest bidder. These other firms will not set the same price as the firm that has been in the business for eight or ten years, and which has practically no other business excepting high-speed tool steel.

Mr. THOMAS. What is the name of the firm?

Admiral MASON. The Firth-Sterling Steel Company. They are located at Giesboro Point, on the other side of the Potomac River,

but their main works are in Pittsburg. The only other product of this firm is high-speed tool steel, as far as I know. They have been in the projectile business for a long time. They make an excellent projectile, and in the last bid for this reserve ammunition they stated that they were willing to take the whole of it—that is, all of the order—if we would give it to them, and would expand their plant without increasing their price at all. The Bureau considered that rather objectionable, as we would then be in the hands of one firm. A strike, an explosion, or a fire, or anything of that kind, would shut them up, and we would not have anybody else to make our projectiles. We considered that it is a great deal better, to use a slang expression, to have at least “two or three strings to our bow;” that is, two or three firms equipped for manufacture. At the last opening of projectile bids the Firth-Sterling Steel Company was the lowest bidder, but did not bid for the whole number required. The Bethlehem Steel Company was given a small order and the Crucible Steel Company a fairly large one for the largest caliber, 13-inch.

Mr. HOBSON. Are there any facilities in the hands of the Government to make projectiles in case of necessity, within a reasonable time?

Admiral MASON. No; it would be on a par with the starting of an armor-plate plant. We would have to start the factories, and it would take some time. But notwithstanding the fact that we know a good deal about it, it takes a long time to educate the necessary men who do the work, and that is probably the reason why the Bethlehem Steel Company and the Midvale Company do not come in and bid for manufacture at the lowest price. They have very large plants and they make very good steel, but they have not the men and they have not the processes, and evidently do not wish to take the risk of undertaking the work at the lowest prices.

Mr. ROBERTS. Admiral, is the Government paying an unduly high price for these projectiles?

Admiral MASON. I think not. I think that the price is very reasonable, and the question has come up quite often; in fact, I have spoken of it in the annual report to the Secretary of the Navy with regard to purchasing abroad. I have been informed—how reliably I do not know—that we could not buy projectiles abroad of the same quality for the same price.

Mr. ROBERTS. Then so far as the price is concerned the element of competition does not have any weight?

Admiral MASON. I do not think so. The Firth-Sterling Steel Company have always been, so far as I know, very fair-minded, and have not attempted to take advantage of the situation and run prices up.

Mr. ROBERTS. Then they are not making a price on their monopoly?

Admiral MASON. No.

Mr. HOBSON. Admiral, is there any way to encourage additional projectile factories without overstepping the usual forms and regulations in regard to it?

Admiral MASON. Prior to the putting in of this clause that the chairman has just read concerning competition, the custom of the Bureau of Ordnance was to get informal bids, and the bulk of the orders went to the firm bidding the lowest, providing they could furnish the material of proper quality. And then, in addition, more

orders were given to other firms to try to educate them up to the work. That would be the only way, and of course that rests entirely with the Navy Department as to whether they would on occasion give small orders.

Mr. HOBSON. At the present juncture, as I understand it, we are entirely dependent upon one factory?

Admiral MASON. Almost entirely.

Mr. HOBSON. Even should war come upon us?

Admiral MASON. If we wanted projectiles of the very highest character, we are.

Mr. HOBSON. And is not the capacity of that one factory normally near its maximum?

Admiral MASON. It is now, and, as a matter of fact, the present deliveries will not be finished for a year and a half or two years. They are willing to increase, but there is another objection to that increase, in that armor-piercing projectiles are something that we do not expend excepting in time of war; and if one reserve of ammunition is completed, then the only armor-piercing projectiles manufactured are the ones for the new ships authorized and also the necessary number to replace projectiles that have finally become obsolete and are scrapped and thrown aside. So that they might increase their plant now, and then at the end of three years, when the reserve was entirely complete, they would find themselves with a big plant on their hands for making our projectiles and no work.

Mr. LOUDENSLAGER. In that view of the case, do you think it likely that American capital and American ingenuity would start up another plant for the sake of getting a few dozen projectiles out?

Admiral MASON. Hardly. These other large steel manufactories that I have spoken of have the necessary plants on hand now for most of this class of work.

Mr. LOUDENSLAGER. But whatever enlargement they might make would, according to your statement, be entirely useless capital in three years.

Admiral MASON. Hardly. These other large steel manufactories think they are utilizing what plants for projectile making they already possess—for that purpose, at least.

Mr. HOBSON. Has anything been done looking toward the possible manufacture of armor-piercing projectiles by the Government?

Admiral MASON. No.

Mr. HOBSON. Has the Department ever considered the advisability of having that particular kind of shell manufactured by the Government because of this situation?

Admiral MASON. No; we have never taken that into consideration.

The CHAIRMAN. Ammunition and other supplies for new ships \$1,284,000. Last year we appropriated \$750,000. Please explain the necessity for this increase.

Admiral MASON. Until the present fiscal year this was appropriated for under the appropriation "Increase of the Navy, armor and armament." This amount has been deducted from the estimates for the appropriation "Increase of the Navy, armor and armament," and placed with the appropriation "Ordnance and ordnance stores" in compliance with the Department's directions, it being considered better policy not to consider the perishable and expendible supplies for a new ship as a portion of her original cost. This includes am-

munition and other supplies down to and including the battle ship and two torpedo boat destroyers authorized by act approved March 2, 1907. Should Congress fail to appropriate this sum under the above head, it should be included under "Armor and armament."

The CHAIRMAN. That is what you did last year?

Admiral MASON. Yes, we commenced that last year.

The CHAIRMAN. And you deduct that from this amount?

Admiral MASON. Yes.

Mr. ROBERTS. If we continue this language, are we not continuing the condition of affairs pointed out yesterday by Admiral Rogers as to this powder for new ships? Unless there is additional legislation for the other ships, are we not going to have a lot of powder, under this appropriation, that within a year or two from now will have deteriorated, because there will not be ships enough to use it, and it can not be used by the old ships?

The CHAIRMAN. This ammunition goes into the new ships; it is not reserved?

Admiral MASON. No, but in order to get it away from this appropriation it would have to be put aboard new ships, and after it is received aboard ship, then it leaves this appropriation and becomes "Ordnance and ordnance stores."

Mr. ROBERTS. If I understood Admiral Rogers correctly yesterday, we have on hand millions of dollars' worth of ammunition purchased under just such provisions as this for new ships. He is asking for some change of law by which that may be turned into the naval supply fund so that the legal objection may be removed. If we appropriate under this language, it would seem that we are going to secure more ammunition than can be used, while by a change of language we might obviate that.

Admiral MASON. I should like that very much, but I think it would be for the best interests of the Bureau to have it so worded that we could use the ammunition purchased under that appropriation for any purpose whatever. We have to fit the ship out with ammunition anyway.

Mr. ROBERTS. Suppose the word "new" should be stricken out, then would not the item cover all purposes? You could then put that ammunition on either the new or the old ships, doing anything with it you wished to do, although you want the ammunition primarily because of the new ships coming into commission. It seems to me that we could defend the appropriation on the floor just the same if it were so worded, as the appropriation is made necessary by reason of the additional ships commissioned this year. But I think the striking out of the word "new" would prevent any question being raised as to the ultimate use.

Admiral MASON. I should like to see it go out if it can be done properly.

The CHAIRMAN. Is this appropriation asked for any larger than is necessary to supply the new ships?

Admiral MASON. No, sir; it is not.

The CHAIRMAN. I see in the first item, ordnance and ordnance stores, that you have a paragraph there "for the armament of ships." That means for the old ships, does it not?

Admiral MASON. The old ships, yes. Of course the ideal way would be to add this to the appropriation for ordnance and ordnance

stores and then give us a lump sum each year, but it is put in this way as a subhead under "Ordnance and ordnance stores;" and if the word "new" was left out, then of course we could use the ammunition for any purpose.

The CHAIRMAN. In the bookkeeping they keep them separate, the ammunition for the new and the ammunition for the old ships?

Admiral MASON. Yes, sir.

The CHAIRMAN. Is that a good thing to do?

Admiral MASON. I should say not, and I think that it would be in the best interests of economy in all directions to lump all ammunition and ammunition supplies under one head, making the Department responsible for its proper accounting and distribution.

Mr. PADGETT. Suppose that that paragraph should be eliminated, and whatever we think proper in this paragraph should be taken and added to the item on the preceding page of \$4,500,000, in the first part of which item you ask for various things. Should this item on page 22 be eliminated, and the amount added to the previous item, would it cover your purposes and avoid the question of accumulating ammunition on new ships?

Admiral MASON. I think from the wording of the clause concerning the appropriation for ordnance and ordnance stores that it could be done, provided the word "ammunition" should go in also.

The CHAIRMAN. So that it would read "for the armament and ammunition of ships?"

Admiral MASON. Yes; although, really, powder is a part of armament, and we supply old ships with powder as fast as they use it up. The only thing would be the further difficulty of explaining the increase in the appropriation for ordnance and ordnance stores. This is a subhead of that appropriation, and if, as Mr. Roberts suggests, the word "new" is stricken out, I think it will relieve our difficulties.

The CHAIRMAN. Can we safely reduce this appropriation this year?

Admiral MASON. No, sir; we have got to have all that this year. The contractors are pushing these new ships rapidly, and we are kept on the jump in the Ordnance Department in order to keep up with them.

Mr. DAWSON. Is there no ammunition now available for new ships?

Admiral MASON. We have a lot that is available under the appropriation "Increase of the Navy, armor and armament." Certain new ships (*South Carolina* and *Michigan* and beyond) are to be outfitted under the new system of appropriation, and they can't be given "Armor and armament" ammunition. If the law is changed to make this transfer possible, much of it can be so used. However, this ammunition is counted in computing the reserve supply for which the additional appropriation would be needed, making the ultimate expenditure the same.

Mr. DAWSON. In a general way what does the term "other supplies" in that paragraph include?

Admiral MASON. It means other perishable supplies in ordnance, like ordnance stores of different kinds; small amounts that go into the original outfitting of the ships, such as oil and things like that, everything that is perishable and expendable, things that belong to the hull of the ship, and go aboard ship, and are fastened up in place. They belong to the original cost of the ship. As to any material that goes aboard ship and can be used up, they have an allowance to use so much

a month, such as we use for target practice. That goes under the head of supplies.

Mr. PADGETT. Yesterday Admiral Rogers stated that we had millions of dollars' worth of ammunition accumulated that had been heretofore purchased under this clause for the armament of new ships and which is now on hand. I wanted to ask if that is antiquated or would it be available by transfer to the new ships?

Admiral MASON. If the Admiral said "millions," I should say that there is not as much as that; in fact, we can not say exactly how much, because an inventory is now being taken, and it will be completed in the course of a couple of weeks. But part of this ammunition, I imagine, is getting so that we would not care to put it on a new ship to stay for a long time. I will say by way of explanation that you can not use smokeless powder in different guns. It requires a different granulation for each caliber of gun. An order goes to a certain magazine to furnish a certain amount of powder for an 8-inch or a 12-inch gun. The officer in charge looks over his stock on hand and finds that he has not the proper granulation under the appropriation for armament and armor, and as he has to comply with the order at once, he takes the ammunition from another appropriation, ordnance and ordnance stores, or reserve, sending to the general storekeeper a slip saying that he has used so much of the ordnance and ordnance stores' ammunition. Then the ordnance and ordnance stores' appropriation is debited, and in the meantime the original ammunition which was originally purchased for that ship at some magazine has been purchased under armament and armor, and we can not get rid of it; we can not sell it, and we do not find it convenient to transfer it to another appropriation.

Mr. PADGETT. I understood from Admiral Rogers yesterday that there was an accumulation aggregating as much as many millions of dollars' worth, as he expressed it—if I remember correctly there was about \$10,000,000 of surplus, or about twenty millions of dollars' worth in all, and \$10,000,000 or \$12,000,000 worth would be sufficient, so that there would be a surplus of something like ten millions of dollars' worth.

Admiral MASON. I do not think so; but, as I say, I can not answer definitely until after this inventory is taken.

Mr. PADGETT. But waiving the question of the amount, what I wanted to get at was, is this ammunition surplus, whatever it may be, being antiquated and useless, or is it available for transfer to new ships that go into commission?

Admiral MASON. Oh, I think I understand what Admiral Rogers was talking about. We have on hand a good deal of brown powder, and Admiral Rogers does not know that we are not using this brown powder at all, and the amount must run nearly up to half a million as to value. We can not use it at all, and we can not dispose of it. I have been having some of it condemned, and have advertised it for sale, but we could not get a bid large enough to pay for packing it up and sending it away. A certain amount of obsolete material, such as cast-iron projectiles, brown powder, etc., now on shore, will be counted in the inventory at its cost price. Considering the extensive developments and changes in ordnance, the amount is surprisingly small; there are, for instance, only 1,500,000 pounds of brown powder, costing about \$500,000.

Mr. PADGETT. Could it be used for target practice?

Admiral MASON. No; it is the same as black powder; it makes a dense smoke, and there is no use in having target practice with a character of powder that you do not use when the time comes for action. It is not used at all. I understand now, I think, what Admiral Rogers was talking about. It is this brown powder, and it is practically useless.

Mr. THOMAS. How do they make their inventory? Do they use the original cost of the powder, or its present value? It is really worthless, as I understand you?

Admiral MASON. They will take the inventory upon the cost that is shown on the books. Then as soon as we get the inventories in, the commandants of the several stations will be directed to order surveys. We have to do that to comply with the law. We can not arbitrarily reduce the price.

Mr. ROBERTS. I would like to ask, with regard to finding a market for condemned brown powder, if that is true, also of smokeless powder?

Admiral MASON. No; with smokeless powder we are in a position to work it over.

Mr. ROBERTS. That is, there is a value to condemned smokeless powder.

Admiral MASON. Yes; unless it is so bad that you have got to destroy it.

Mr. LOUDENSLAGER. What proportion of the original cost does it require to work that powder over?

Admiral MASON. About 25 per cent.

Mr. LOUD. But nothing can be worked from brown powder to advantage.

Admiral MASON. To my mind, if they could get at it right, and have a plant for it, they could get the nitrate of soda out of it by leeching it, as we make lye.

Mr. LOUD. That is what percentage of the present value?

Admiral MASON. The people we have approached say about 1 per cent. Of course we can not go into that business, but we have made some experiments in a small way.

Mr. PADGETT. How long does it take the powder, as it is being manufactured at the present time, the up-to-date powder, if stored, to become useless from chemical changes, or otherwise?

Admiral MASON. We have powders on hand now that are six to eight years old. I am in hopes that the powder we are making at present, as we have changed the methods of manufacture and purification, and also have very much improved the quality of the material out of which it is made, will last ten or twelve years, but it is something that you can not be sure about. We have within the last week or so been compelled to hold up powder which was made three years ago, but only one small lot.

Mr. HOBSON. In the rapid evolution of the gun, would smokeless powder, even though of itself safe, be available for new guns if one or possibly two years old? Would you wish to put smokeless powder four years old aboard a new ship for new guns?

Admiral MASON. Yes, if the powder was stable. The way it is manufactured the ballistics do not change very much with age, so that if the powder is considered safe to put aboard ship, we would

use it; but if we changed the characteristics of the gun itself, then the granulation might be obsolete; that is, the powder would have to be worked over and used upon a ship of a definite granulation.

Mr. OLCOTT. You can not figure on that; that is, as to how it might be used in the future?

Admiral MASON. No, we can not tell what may happen in two or three years from now. We have been going by jumps so fast in ordnance that it is pretty hard to keep up with it. It is usually found, however, that a powder can be made to fit some certain class of gun. We have some on hand that fits nothing and must be re-worked, but it is unlikely that this necessity will recur.

Mr. ROBERTS. Do you use nitrate in this smokeless powder?

Mr. MASON. Yes, the pyrocellulose, the cotton, is nitrated by mixture with niter and sulphuric acid. Nitrate of soda and nitrate of potash are used in the manufacture of the acid.

Mr. ROBERTS. Is that the same nitrate that is used in the black or brown powder?

Admiral MASON. In the manufacture of the acid, yes.

Mr. ROBERTS. And the nitrate that the Government has gathered together in years past is still available?

Admiral MASON. It is available in that we still hold it at the magazine at Malden.

Mr. ROBERTS. You are still using it?

Admiral MASON. We are not using it, but we can use it.

Mr. MUDD. Regarding your reply to a question as to the use of four-year-old smokeless powder. Do you consider that safe to put on board ship; and please explain what you mean by that. Is there anything in the age of the powder—

Admiral MASON. The only reason why this smokeless powder deteriorates with age is because it is not properly made; and if there is anything wrong with it eventually, especially at high temperatures, it commences to deteriorate or disintegrate, that is, the acid commences to free, and as it frees, it breaks down the rest of the pyrocellulose, and if left long enough the pile of smokeless powder will become a pile of mush.

Mr. MUDD. What is the proportion of that to the powder that is manufactured?

Admiral MASON. The experts tell us that as long as we use the pyrocellulose, which is a low grade of gun cotton, that with age and high temperature it will eventually break down. It is good, however, for ten years anyway, if properly made and cared for.

The CHAIRMAN. Purchase and manufacture of smokeless powder \$650,000, an increase of \$150,000. Please tell us how much we purchase and how much we manufacture.

Admiral MASON. All of this is practically to pay for the manufacture of smokeless powder at the proving grounds. The \$150,000 increase is for reworking deteriorated or useless powder at Indian Head powder factory, as I have mentioned before.

The CHAIRMAN. How much of this appropriation?

Admiral MASON. Almost all of it. The word "purchase" is used because we use it to purchase material in case anything happens at the proving grounds.

The CHAIRMAN. What is the price of smokeless powder?

Admiral MASON. We are paying now 67 cents.

The CHAIRMAN. At what price do you figure it in case you manufacture it?

Admiral MASON. Forty-seven and one third cents.

The CHAIRMAN. Do you take into consideration the cost of the plant in that 47 $\frac{1}{3}$ cents?

Admiral MASON. Yes, sir.

Mr. LOUDENSLAGER. How much did you manufacture last year at the proving grounds?

Admiral MASON. I have not the exact figures, although I will put them in, but I should say about a million two hundred thousand pounds. The exact figures are 1,047,063 pounds.

The CHAIRMAN. Also include in your answer the amount that you purchased.

Admiral MASON. About 2,000,000 pounds.

Mr. ROBERTS. Do you mean out of this appropriation, or altogether?

Admiral MASON. We did not purchase any out of this appropriation. It cost the Government really about 46 or 48 cents a pound, or something like that, but of course we did not charge in any expenses, that is my salary or the salary of the commanding officer of the proving ground, or that of the chemist and so forth, as they are all paid by the Government outside, whereas the smokeless powder companies have to pay for superintendence and so forth. The additional expenses to companies are: Insurance, interest on investment, rejection losses, taxes on property.

Mr. THOMAS. Do you pay any royalties?

Admiral MASON. Not on smokeless powders. Those patents are obsolete. They are working under our specifications, and, as a matter of fact, this price was fixed by a joint board of army and navy officers, who fix it each year. The first year it was 70 cents, and the Government furnished the alcohol. That made the price about 74 cents, and the first report of the joint army and navy board was 70 cents without furnishing the alcohol. Then it went down to 69 cents, and this last year, within three months, the board has taken up the question again, and have reduced the price to 67 cents, I think.

The CHAIRMAN. Do you regard it as a reasonable price?

Admiral MASON. Yes, sir.

The CHAIRMAN. For a private concern?

Admiral MASON. Yes. I think it is a reasonable price; and this board has allowed for only a sufficient profit to cover the manufacture of such a dangerous product.

Mr. THOMAS. But this is the point: How do you figure out where we can save so much over what a private concern can afford to sell the powder for. Where is the saving? Is it in the purchase of the alcohol, for instance?

Admiral MASON. I do not see that we do save.

Mr. THOMAS. You give the price as 67 cents when you have to buy it, while you say that you manufacture it for 45 or 46 cents.

Admiral MASON. We did not charge for the deterioration of the plant. The price of 67 cents is made up by counting the deterioration of the plant, the interest on the value of the plant, and also allowing a certain amount for oversuperintendence.

Mr. THOMAS. But really there would be no saving?

Admiral MASON. No saving at all.

Mr. ROBERTS. The Admiral gives the price at 45 to 46 cents, and he does not consider his salary or the salary of the officer in charge of the station, the chemist, etc.

Admiral MASON. No; none of the people that are appropriated for regularly in the civil establishment.

Mr. ROBERTS. Should that be considered in arriving at your cost, and should that also be considered in arriving at the cost to the Government when you buy through private contract, because your salary is going on just the same, and you have to use an inspector and a chemist, so that that element would not enter into it, would it?

Admiral MASON. Yes; I can not agree with you there, because I have something to say about it when the work is going on at Indian Head.

Mr. ROBERTS. You told us that you laid down the conditions for them to work under.

Admiral MASON. Yes, we make out the specifications; but I meant that I have something to say concerning the management, for the requisitions come to me for approval and the commanding officer consults with me. Under those circumstances I am the head, whereas in the private manufacture I am only the chief inspector or the Government's agent.

Mr. ROBERTS. But it takes more time when we manufacture than when we buy outside—that is, make contracts in the open market.

Admiral MASON. The time consumed in making contracts in the open market amounts to very little.

Mr. DAWSON. Do you think that the powder we purchase is equal in quality to the powder we manufacture?

Admiral MASON. Exactly so.

Mr. DAWSON. Do you propose to increase your facilities for the manufacture of this powder?

Admiral MASON. It will come up later in this bill; yes.

Mr. MUDP. You ask for more money?

Admiral MASON. Yes, but not under this particular appropriation.

Mr. DAWSON. We have heard a great deal, and we will hear more when this bill comes on the floor, about the powder monopoly—about the deterioration of the powder and the low grade of powder supplied to the Government by the so-called powder trust. Have you any views that you would give to us that would enlighten us on the subject and prepare us against these attacks if they should come?

Admiral MASON. I would be very glad to give the committee any information that I can. I am not prepared offhand to go into particulars, but all I can say is that we are not in the hands of a powder monopoly in any way, and I should say, to the contrary, that the powder people are in our hands, because we make the price, we prescribe the specifications, and we have inspectors and subinspectors to watch the processes and to make them do just exactly as we say.

Mr. DAWSON. Was there a Joint Army and Navy Board created to consider this whole powder question?

Admiral MASON. Yes.

Mr. DAWSON. Where will their report be found—is it in your annual report?

Admiral MASON. I think it is a public document, but I will be very glad to look it up and give you all the information on the subject.

Mr. DAWSON. Will you please do that?

(Copies of Joint Board's reports and correspondence concerning price of smokeless powder are hereto appended, marked "A, B, C, D, E, and F.")

Mr. THOMAS. Is there a powder trust?

Admiral MASON. As far as the Navy Department is concerned, no; we have control of it.

Mr. ROBERTS. I would like to ask if we are getting as good powder from the private manufactories as from Indian Head?

Admiral MASON. Decidedly, yes.

Mr. MUDD. Admiral, if they make powder just as good, and just as cheaply, what is the particular reason for maintaining a Government establishment? Do you claim it tends to prevent monopoly?

Admiral MASON. By having the Government plant we have control of the situation. We know exactly how much that powder costs us, and when these people come in with exorbitant prices we say, "You can not get such prices, and if you do not come down within reason, we will go to Congress and ask them to give us a plant in which we can make all of the powder, although we do not like to do that because we want to keep two or three outsiders going in case of accident to our plant."

Mr. LOUDENSLAGER. Then another thing, it keeps you posted as to the evolution and manufacture of powder.

Admiral MASON. Yes; we are making experiments as well as the powder companies.

The CHAIRMAN. Machine tools, navy-yard, New York, and magazine, Dover, N. J., \$10,000. Is that for general use?

Admiral MASON. These tools consist of one electric screw pump, one steam hammer, one shaping machine, one cold saw, two lathes, and one milling machine.

The electric screw pump is required to replace a steam pump, with its boilers, now in use as part of the fire protective system. It is considered that the boilers and furnace for this pump are too near magazines to be safe. In case of fire it would take so long to get up steam that the aid of this pump could not be depended upon; and as it supplies two small reservoirs, it is important that it be replaced with a modern electrically driven pump.

There is no steam hammer in the ordnance department at this yard, and one is greatly needed for rebanding shell and for other ordnance work. The present practice is to have such work done on transfer requisition, which has proven to be both cumbersome and costly, as the work has to be trucked to a distant part of the yard and then trucked back to the ordnance machine shop for finishing; besides it is not always practicable to obtain the use of another department's hammers.

There is only one small shaping machine in the department at this yard at present, and its capacity is not sufficient to meet the demands made upon it.

There is no saw in the department, although there is much use for one. Work that should be done by a saw is now cut by other tools not adapted for the purpose.

When ships are at the navy-yard undergoing repairs, lathes are in great demand, and urgent work is delayed by an insufficient supply of small lathes.

There is only one small milling machine in the department, and its capacity is insufficient to meet the demands made upon it.

Mr. OLCOTT. Let me ask why this item of machine tools at New York is combined with the magazine at Dover, N. J.?

Admiral MASON. The naval magazine at Dover, N. J., is under the control of the commandant of the New York yard. Although they have a resident chief gunner, everything is supervised by the inspector of ordnance of the New York yard, it being under the immediate command of the commandant there.

Mr. MUDD. I notice an item for tools under these same navy-yards in Yards and Docks lower down. In what respect have they been completed?

Admiral MASON. That is a different bureau. We have at the New York yard quite a large machine shop where we do ordnance repairs; in fact, the success in fitting out some of the battle ships that have gone around to the Pacific was due to the New York yard and the fact that we had a very good shop there. We want to increase the supply of tools there.

The CHAIRMAN. Machine tools, navy-yard, Mare Island, Cal., \$50,000.

Admiral MASON. The ordnance department at this yard is under a great disadvantage for conducting work economically and quickly on account of the shortage of the necessary tools. The Bureau desires to put this place on a good business footing on account of its important position on the Pacific coast, and is of the opinion that the sum asked for is of urgent and necessary importance.

The CHAIRMAN. One 5-ton auxiliary hoist, building No. 111, navy-yard, Mare Island, Cal., \$3,500.

Admiral MASON. As a great deal of work which is now being done with the 25-ton electric traveling crane in building No. 111 is of weights of 5 tons or less, it would be of great advantage and would add to the life of the crane if the 5-ton auxiliary hoist were installed.

The CHAIRMAN. For Naval Gun Factory, Washington, D. C., purchase and erection of new and improved machinery, \$150,000.

Admiral MASON. This is the same item that was asked for last year under the heading "New and improved machinery for existing shops." It is necessary that \$150,000 should be appropriated for the purchase and erection of new and improved machinery. Owing to the extension of the Gun Factory and the working of increased shifts in all of the shops the constant wear and tear on the present machinery has been very great, and it is necessary that the amount asked for should be obtained in order to keep up a proper standard of efficiency. A similar amount was appropriated for the current fiscal year.

NOTE.—The approximate total value of machinery at the Naval Gun Factory is over \$4,000,000.

The CHAIRMAN. Will you need all of that sum this year?

Admiral MASON. Yes; the contracts for the total value of the machinery in the Gun Factory is about \$4,000,000, and I think about \$150,000 is not too much for this year.

The CHAIRMAN. Machinery, cupolas, furnaces, and so forth, for proposed new foundry, \$122,000. That is on the theory that you get the new foundry?

Admiral MASON. Yes. The need for a new and modern foundry and machinery for the same was fully explained in the estimates submitted last year. The present foundry is antiquated and entirely inadequate in size and unsuitable as a foundry for such an institution as the Naval Gun Factory. It is a menace to the health of the employees and the officers resident in the yard in its present situation. The loss to the Government every year by not having better facilities in this regard would soon equal the amount requested to properly provide for this portion of the Gun Factory, and its increased product would materially aid in the output of armament from this factory, saving both time and expense. It is the most needed of all improvements recommended, and it is urged that every effort be made to procure a suitable appropriation for the starting of this much-needed improvement. At present, in case of emergency, the requirements of the Gun Factory could not be met, and the Government would be embarrassed by not having suitable facilities for getting out foundry work. This foundry, when completed, is to cost \$300,000 for the building, and this appropriation is for the machinery alone. I understand that the Bureau of Yards and Docks is asking for only a portion of the \$300,000 for use during the coming fiscal year, therefore this appropriation can be divided in half, with the idea of asking for an equal amount for machinery next year for a fully equipped foundry.

The CHAIRMAN. Remodeling 110-ton crane in north gun shop, \$30,000.

Admiral MASON. That also was left out last year. The 110-ton crane in the gun shop has been in use about sixteen years, and the trolley and the carriage are antiquated, besides being very much worn. These parts can not last much longer, and they should be replaced with the latest improved parts, which would make the crane serviceable for years to come.

The CHAIRMAN. Machinery for locomotive house, \$12,000.

Admiral MASON. That depends upon whether we get the locomotive house or not.

The present locomotive house is entirely inadequate for the number of locomotives and locomotive cranes we now have. It is necessary that we should have a larger house to accommodate these machines. The present one does not admit of extension and the ground it occupies is needed for other purposes. Without proper housing facilities in winter steam must be kept up on locomotives and cranes all the time to prevent freezing, thus greatly increasing our running expense of attendance and consumption of fuel. Seven of the ten engines and wreckers can not now be housed and are consequently exposed to the weather. If additions to the present number of engines and cranes were made, they also would be without housing facilities.

The CHAIRMAN. For mines for issue (for mine ship), \$100,000.

Admiral MASON. This item is to provide mines for a mine ship in case one is authorized. At present there are no mines available for issue to such a ship and no money available for the purchase or manufacture of mines for issue. The Department has now under consideration the altering and fitting of the *Baltimore* and *San Francisco* as mine-laying ships, and these mines will be a portion of their outfits.

Mr. Mudd. Why do you ask for the ships?

Admiral MASON. I think that the committee will have a communication from the Department concerning permission to alter the *Baltimore* and the *San Francisco* into mine ships.

The CHAIRMAN. That will come under Construction and Repair.

Admiral MASON. Yes; the reason being that the alterations and repairs will be beyond the regular percentage so that we will have to have permission. But if the ships are authorized to be fitted by Construction and Repair, before they are ready for service they will have to be supplied with mines by Ordnance.

The CHAIRMAN. For experimental work in the development of armor-piercing projectiles, etc., \$200,000.

Admiral MASON. Briefly, that is requested for an amount to carry on experimental work. The Navy is going ahead with leaps and bounds, and you can not improve material without experimenting. Heretofore we have taken a little here and there when it became absolutely necessary from existing appropriations, but now we find it very desirable—in fact, absolutely necessary—to have a sum.

The CHAIRMAN. Have you any sum now?

Admiral MASON. No.

In explanation of the request for an appropriation for experimental work in ordnance, under the direction of the Special Board on Naval Ordnance—

1. The extraordinary advances of the last few years in all branches of naval development have nowhere been more striking than in matters coming under the cognizance of the Bureau of Ordnance. In a little more than ten years, the power of guns has been doubled, the 12-inch gun of to-day giving us a striking energy of 50,000 foot-tons as against 24,000 for the corresponding gun of 1895. Smokeless powder, a new and as yet a very imperfectly understood explosive, has taken the place of the charcoal powder whose properties and reactions had been studied for centuries by chemists and artillerymen. The resisting power of armor has been increased by fully 50 per cent and the penetrative power of projectiles by at least an equal amount. High explosives have, to a great extent, been substituted for black powder for the bursting charges of shells and every military and naval power in the world is eagerly experimenting along this line in the hope of gaining some advantage over its rivals and possible enemies. These are only a few of the developments of the immediate past. They have resulted from careful, painstaking experimental research along a great variety of lines. Such research demands a body of observers who can give their undivided attention to the work and a considerable fund which may be expended under their direction. So far as our own work in this direction is concerned, the first of these demands has been met by the Bureau, by the creation of the special board, whose work during the three and one-half years of its existence has fully justified the Bureau's insistence upon the necessity for such a body. The second demand, that for a fund for experimental work entirely independent of current expenditures, can be met only by an appropriation similar to the one which is provided each year for the experimental work of the Board on Ordnance and Fortifications of the Army. The work of the Naval Board above referred to, valuable as it has been, has fallen far short of what might have been accomplished with such a fund at its disposal. The Bureau has done what lay within its power by authoriz-

ing limited expenditures from the appropriations for "Ordnance and ordnance stores" and "Armor and armament" whenever the work in hand was so clearly related to the purposes of these appropriations as to justify this course; but the time has come when no such make-shift policy as this will satisfy the demand, which is becoming more urgent every day, that our Navy—as represented by this Bureau—shall at least keep abreast of other navies if it does not lead them, in the development of all branches of ordnance material. Reference has already been made to the rapidity of this development in the immediate past, and to the difficulties under which the Bureau has labored in its efforts to keep pace with other powers. The developments of the immediate future promise to be far more important than those of the past, and there are already opening up many lines of investigation so vital that we can not afford to be left behind in any one of them. Our present type of smokeless powder is far from satisfactory, and efforts are already in progress in this country and abroad looking to the development of a powder which shall be at once more stable and less serious in its eroding effect upon the gun. So far as the present powder is concerned, it is most important to investigate its behavior in the gun, and this, not only from the point of view of ballistics but from that of chemistry—the last especially in connection with flare-backs—though there are many other features of importance connected with the chemical side of the combustion of the powder of which we know far too little. The investigation of the ballistics of the powder calls for extensive series of firings, using all the instruments of precision which have been or can be devised.

2. Experiments along this line have already been begun, with gratifying results up to a certain point, but they are now at a standstill because the next firings include a large number of rounds from a 12-inch gun, the estimated expense of which is \$15,000, a sum far in excess of any that the Bureau can allot from current appropriations. Yet the results of these experiments have a direct bearing upon the various accidents which have occurred with smokeless powder by which the muzzles of several guns have been blown off. In other words, the results of these experiments are urgently needed by the Bureau in connection both with the composition of its powders and the design of its guns.

3. In connection with the matter of erosion, another line of possible development has to do with the character of the steel used. Within the last three years a wonderful field has opened up in connection with the alloys of certain substances with steel, and there is every reason to believe that among these alloys there can be produced a metal for use in the bore of the gun which will resist erosion to a far greater extent than does the steel which we are now using. With such a metal for the tube of the gun and with the exceedingly tough and elastic metal which is already obtainable for hoops and jackets, we shall be able to use larger charges of powder and to carry the power of our guns far above the 50,000 foot-tons (for the 12-inch gun) to which we are now limited. Whatever nation first finds the way to correct erosion—whether by changes in the gun or by changes in the powder—will at once take a commanding lead in the power of ordnance. These problems must be worked out experimentally and

will call for the outlay of a sum of money, which, while it may seem considerable at first thought, is altogether trifling in comparison with the results to be hoped for. The Ordnance Department of the Army has recently conducted experiments with a new form of projectile for small arms, with results as regards the range and accuracy attained, which are little less than marvelous. The question at once arises whether advantage can be taken of this form for large projectiles, or whether the long and slender head will be too weak for armor piercing. The question connects itself with the new developments in steel already referred to, through the possibility that the new alloys will give us what is needed in the shell. But this, again, is a question calling for a long series of more or less costly experiments. In connection with the introduction of high explosives for the bursting charges of shells, and the development of a satisfactory detonating fuse, something has already been accomplished, but there remains much to be done, and it is important that this should be pushed forward as rapidly as possible.

4. The above are only a few of the many lines of investigation which are pressing urgently for experimental research. They all deal with matters of urgent practical importance to the fighting efficiency of the fleet and the safety of its personnel. To these may be added the investigation of promising devices which from time to time are referred to the Bureau by inventors. These are usually presented in such shape as to call for final development by the Government, and are not infrequently refused consideration because of the lack of money to work them up and test them. The Bureau has under consideration at the present time an experiment suggested by Senator Dick for testing the penetration of armor by our 12-inch rifle at long range by firing at armor plates at the actual distances in question, instead of simulating the conditions by placing the plate a short distance from the gun and reducing the velocity to that which the projectile would actually have at 5,000 yards range, for example.

The estimated cost of this experiment is \$20,000.

It is also considered very necessary to continue experiments with turrets, mounts, ammunition hoists, sights, and torpedoes, so as to keep the ordnance of the Navy at least up to date, and if possible ahead of that of other services.

Mr. LOUDENSLAGER. How about the work at Newport?

Admiral MASON. At the gun factory, Washington, we are now building a wooden model of a turret mount.

Mr. ROBERTS. Admiral, could you do that work, or any portion of it, for a less amount of money, or could you start it on a less amount of money, than \$200,000?

Admiral MASON. We could start it on a sum as low as \$500, I suppose, but—

Mr. ROBERTS. No; I mean could you start it on a less sum and do any beneficial work?

Admiral MASON. Not to be of any benefit; no, sir.

Mr. ROBERTS. Then you need the whole \$200,000 to do any beneficial work at all?

Admiral MASON. We ought to have that every year.

The CHAIRMAN. Have you any fund at present with which to do experimental work?

Admiral MASON. If I can save anything out of "Ordnance and ordnance stores," I can use that.

The CHAIRMAN. Is not that language sufficient to enable you to do the experimental work without putting in this new item?

Admiral MASON. Oh, yes; the language is all right, but the money isn't there.

Mr. ROBERTS. Suppose you could only get \$100,000, would you rather have that or nothing at all under that head?

Admiral MASON. Of course, I would take that; but I think \$200,000 is the smallest sum. We would take what we could get, but I consider \$200,000 is the least that we ought to have.

Mr. DAWSON. Has it been determined absolutely that we now have a projectile that will pierce the modern armor of navies?

Admiral MASON. We have an armor-piercing projectile, and within the last three weeks we have experimented with a 7-inch projectile which punctured its own—that is, its own caliber—thickness of Kruppized armor 7 inches in thickness at a distance—

Mr. DAWSON. Were those experiments made at the actual firing distances or was it computed?

Admiral MASON. They were computed distances. We could not fire the actual distance at the proving grounds.

Mr. DAWSON. Then you have had no actual experiments to determine that fact, but it is simply a mathematical computation?

Admiral MASON. The projectile went through the plate.

Mr. DAWSON. But it was not at a firing distance, not at a battle distance, as I understand it.

Admiral MASON. It does not make any difference, because it is a question of the gun and the powder. The projectile will only go through the plate with a certain striking energy.

Mr. DAWSON. But may it not, on the other hand, be simply a question of computation as to the speed and the distance, both of them being less than the actual speed and the actual distance in battle? How do you determine that? How was this test made?

Admiral MASON. This test was made by placing the plate about 300 to 350 feet from the muzzle of the gun, and by our figures we knew that in all probability the 7-inch projectile was fired with a velocity of somewhere between 2,000 and 1,900 foot-seconds. If we aimed at the plate and fired and the projectile did go through—

Mr. DAWSON. But this test was a mathematical computation rather than an actual test.

Admiral MASON. Yes; because it would be impossible for us to put that plate at the proving ground 3,000 yards off. One thousand nine hundred foot-seconds with a 7-inch gun would give about the remaining velocity due to a range of 3,200 yards, I think.

Mr. DAWSON. The point has been raised in my mind that there is a possibility in firing at an actual battle distance that the point of the shell might be diverted or might not strike the object head on.

Admiral MASON. Oh, I understand. I was thinking of a different subject. In my reasons for an experimental appropriation which I have given is included a reason why we wish to try that particular thing.

Mr. DAWSON. Then you wish to determine that phase of it?

Admiral MASON. Yes; as to what the angle of impact of the projectile will be at 3,000 yards. When the projectile leaves the gun

on a range of 6,000 or 7,000 yards the gun would have an angle about like that [indicating], and the projectile would travel about like this [indicating]; so the question is whether the projectile in going over that parabola would go in this direction [indicating] or whether, as it travels, it does not get into a different position so that it does not strike head on. We have never actually proved that. Theory says that it strikes about halfway between, but strikes almost nose on, and I think so, too.

Mr. DAWSON. Then that has not been determined by an actual test?

Admiral MASON. No.

Mr. ROBERTS. That question of the angle of the projectile at the time of striking is well worth ascertaining, is it not?

Admiral MASON. Yes. We have been asked by a Senator if we could not take it up at the proving ground. I had a talk with General Crozier, and he made an estimate of the amount required for the doing of the work at his proving ground at Sandy Hook, where they have several miles of sandy beach to fire down. General Crozier said that he would be glad to do it, but that it would cost from \$20,000 to \$25,000.

Mr. ROBERTS. How are you going to determine by the actual experiments just what the position of this projectile will be when it strikes the target?

Admiral MASON. If it does not strike perfectly normal, then we won't get the penetration, that is all, but in making the experiments, thin screens will probably be used in front of the plate—which will show approximately how the projectile is traveling.

Mr. ROBERTS. Then, after all, it is a mathematical calculation, and if the mathematical calculation does not work out in practice, it will be the fault of the projectile not going in the direction that you think it does?

Admiral MASON. Yes.

Mr. ROBERTS. Is there any way by photography that you can determine the position of the projectile when it strikes?

Admiral MASON. Lately I have seen photographs of bullets going at a velocity of 3,000 foot-seconds, but they are simply small bullets. When you are dealing with projectiles, accidents are liable to happen. You can not get close enough to the impact to photograph.

The CHAIRMAN. For advance base outfits, \$780,000.

Admiral MASON. In compliance with the Department's letter of June 21, 1905, G. B. 408, the Bureau submitted in its last estimates an item of \$775,000, which was not allowed by the Department. The sum now submitted is in compliance with the Department's directions contained in its letters of October 1, 1906, and October 2, 1907.

During the last three years the Bureau has attempted, by direction of the Navy Department, to assemble material for two advanced bases—one on the Atlantic coast and the other in the Pacific.

A small quantity of material has been assembled and reserved for advanced base, using guns no longer available for use on board ship and the current appropriation for necessary material. An attempt to use this for drill purposes in the Pacific showed that it was totally inadequate and some of it obsolete.

The necessity for material of this kind ready for immediate shipment to any point was shown during the Spanish war when circum-

stances suddenly demanded the use of Guantanamo as a base of operations, and lack of material to defend it required that two or more vessels of the fleet, which were urgently needed for other purposes, were forced to remain to protect the base, supplying guns and ammunition from their own stores for the purpose.

During the last war a great advantage was gained by one of the powers by their readiness to seize and protect a base near a port which they had blockaded, and also another base for use of their fleet while waiting the approach of the enemy in force from his home ports.

Owing to the limited coal and ammunition carrying capacity, storeships and colliers must accompany a fleet and remain near during a campaign, but must not restrict the movements of the battle fleet, at the same time being protected from depredation of the enemy's light, swift cruisers.

This can best be accomplished by the seizing of an undefended harbor near the place of operations of the fleet and protecting it from attacks of any but a large force, by means of guns on shore, mines, and torpedoes.

Once supplied, this material would remain ready for use at all times and the expense of maintenance would be small.

The CHAIRMAN. What do you mean by base outfits?

Admiral MASON. This is necessary for material held on hand as a war asset, ready to seize an advanced base at any place near the scene of operations.

The CHAIRMAN. What does it at the present time consist of?

Admiral MASON. Guns, gun mounts, platforms, gun platforms, range finders, torpedo batteries, ammunition, torpedoes, mines, etc.

Mr. LOUDENSLAGER. A sort of ordnance reserve station?

Admiral MASON. The idea is to have one on this coast and one on the other. That would be a good name for it.

The CHAIRMAN. You say one on this coast and one on the other? What is the cost of each?

Admiral MASON. This material is what the general board and the Navy Department want. Our portion of the material would cost about \$780,000.

The CHAIRMAN. This is a new item, appearing for the first time.

Admiral MASON. Yes; although we have asked for it a number of times.

Adjourned at 11.55 a. m.

A.

NAVY DEPARTMENT,
BUREAU OF ORDNANCE.

Washington, D. C., February 23, 1906.

SIR: This Bureau has to request that the Department communicate with the Secretary of War, suggesting the appointment of a joint Army and Navy Board to consider the present specifications for the manufacture and test of smokeless powders for the Army and Navy, with a view to a revision of these specifications where such revision is found to be advisable, and, further, to take up all questions relating to the granulation, manufacture, and tests of smokeless

powders which may be referred to the Board by this Bureau and by the Ordnance Office of the Army.

2. To this end, it is requested that the Board be directed to report to the Chief of this Bureau and to the Chief of Ordnance, United States Army, for instructions.

3. The following officers are nominated for the personnel of this Board on the part of the Navy: Commander Austin M. Knight, Lieut. Commander A. C. Dieffenbach, and Lieut. John Halligan.

Respectfully,
(Signed)

N. E. MASON,
Chief of Bureau of Ordnance.

The SECRETARY OF THE NAVY.

B.

MARCH 16, 1906.

SIR: In accordance with the order of the Secretary of the Navy, No. 3799-69, of March 9, 1906, constituting a Board for the consideration of all matters connected with the subject of smokeless powder which may be referred to the Board by this Bureau and by the Ordnance Office of the Army, the Board is requested to consider the following subjects, and to make such recommendations in connection with them as may be found expedient:

(a) Specifications for the manufacture and test of smokeless powder.

This is intended to include all matters directly or indirectly included in manufacture, beginning with the selection and preparation of all material and ending with ballistic tests for acceptance.

(b) The granulation of powders.

This will include a consideration of the relations between army and navy guns and the feasibility of assigning a granulation for a given caliber in the Navy to the same or a different caliber in the Army.

(c) The cost of manufacture of smokeless powder.

Under this head the Board should estimate, as accurately as may be, the cost of manufacture of powder at the Government plant at Indian Head, including a fair allowance for interest on capital invested, repairs, insurance, salaries, etc. Consideration should be given to losses which may result from the idleness of plant at seasons when the work in hand is insufficient to keep the plant fully employed, and to the possible loss from enforced discharge, at such seasons, of trained employees.

(b) Other commercial features connected with the manufacture and delivery of powder.

Under this head consideration should be given to the purchase of alcohol (by the companies or the Government) and to questions connected with "Solvent recovery;" also to questions relating to boxing and boxes, freight charges, and, in short, to all questions of business and business methods which may be found to be at issue between the Government and the companies.

As a result of (c) and (d), above, an expression of opinion is desired as to the price which the Government should pay for powder with fairness to all interests concerned.

(e) The care of smokeless powder in storage and transportation and the tests to which it should be subjected in service.

This includes all precautions connected with the powder from the date of its delivery to the Government.

(f) It is the intention of the Bureau to give the Board very wide discretion in its investigations, and no subject properly connected with smokeless powder should be regarded as excluded because not specifically mentioned in the preceding paragraphs.

(g) The Board is authorized and instructed to call into consultation such experts as it may desire, and especially such representatives of the powder companies as may desire to be heard. To this end, notice of the existence and objects of the Board should be given to the companies at the proper time and an invitation extended to them to send representatives for consultation.

The officers and employees of the Bureau are at the service of the Board, and very careful consideration is suggested of the methods of manufacture and test which are used at the Naval Powder Factory at Indian Head.

(h) The preceding instructions are to be considered by the Board in connection with such further instructions as may be received from the Chief of Ordnance, United States Army.

Respectfully,

Chief of Bureau of Ordnance.

Commander AUSTIN M. KNIGHT, U. S. NAVY,
Senior Member, Joint Board on Smokeless Powder.

C.

JOINT ARMY AND NAVY BOARD ON SMOKELESS POWDER.

BUREAU OF ORDNANCE, NAVY DEPARTMENT,
Washington, D. C., September 26, 1906.

SIR: Following an earlier report dated August 1, 1906, forwarding revised specifications for the manufacture of smokeless powder, the Joint Army and Navy Board on Smokeless Powder submits the following report dealing with the price which should be paid private manufacturers for smokeless powder for cannon, to be made for the Government in accordance with the specifications above referred to. In arriving at the price hereinafter recommended, the Board carefully considered all data which it could obtain, including the actual cost of manufacturing powder at the Naval Powder Factory at Indian Head, Md., and statements and information presented by the powder makers who were afforded an opportunity to appear before it to discuss the subject involved, to present their views as to the cost of manufacture, and to answer the questions of the Board.

2. The price charged for smokeless powder for some years past has been 70 cents per pound, exclusive of the cost of the alcohol used, which heretofore has been supplied by the Government. The actual price paid, including the cost of the alcohol, has thus been approximately 74 cents per pound. Taking the figures furnished by the Naval Powder Factory for the cost of raw material and labor and accepting its estimate as to maintenance, depreciation, and fire loss, the cost of a pound of powder, based upon an output of 1,000,000 pounds, which is approximately the yearly output of that factory,

working night and day, is 54.6 cents. By adding the interest on capital invested in grounds, building, and machinery, the interest on capital invested at any time in material on hand, powder in process of manufacture and powder in dry houses, taxes, administrative expenses not considered in the data furnished from the Naval Powder Factory, profit, etc., the price per pound is increased from 54.6 cents to approximately 69 cents. In the judgment of the Board it is probable that the experience of the private manufacturers enables them to cheapen the cost of production at certain points, and that the actual cost of their powder is somewhat less than that of the Naval Powder Factory. Such advantage as they may gain here, however, is probably offset by expenses to which they are subject for pensions in the case of employees killed or injured in their works, by damages exacted by neighboring property owners, and by other expenses necessarily incident to the manufacture of powder. From an economical standpoint a Government powder factory has advantages, some of which are the following: Smaller salaries for administrative officers, and plant probably worked to full capacity while those of existing private manufacturers have been generally worked much below their maximum capacity as a result of limited orders. These advantages are, however, offset in a measure by a labor day of eight hours, while the labor day of private manufacturers is ten hours, and by the expense incident to a large number of holidays during the year, for which the Government employees are given full pay.

It is considered probable also that private manufacturers have an advantage over the Government in the purchase of raw materials; but this subject is a difficult one to investigate, and the Board has no accurate information concerning it.

Based upon all data at its disposal, the Board is of the opinion that a price of 69 cents per pound is a fair one to be paid private manufacturers for smokeless powder, the manufacturers to furnish their own alcohol. The Board considers that the arrangement under which the Government has heretofore supplied the alcohol to the manufacturers has many disadvantages, and recommends that in future it be abandoned, and that manufacturers be required to supply their own alcohol, which may be removed from bond free of duty under proper regulations of the Treasury Department.

3. In view of the more economical operation of the plants engaged in the production of smokeless powders for cannon, when operated at approximately their full capacity, it is the opinion of the Board that the above price of 69 cents per pound should be considered as applying only to the existing plants when the orders received from the Government are not in the aggregate sufficient to enable them to be operated to their full capacity. The Board therefore recommends that when the aggregate of the orders of the Government to the four following powder plants, the only ones now equipped to manufacture smokeless powder for the Government, viz, The E. I. du Pont Company, the International Smokeless Powder and Chemical Company, the Laffin & Rand Powder Company, and the California Powder Works, exceeds 4,000,000 pounds, all powder ordered or contracted for in any given year in excess of 4,000,000 pounds be paid for at a price of 65 cents per pound, the manufacturers to furnish the alcohol.

4. A duplicate of this report has been forwarded to the Chief of Bureau of Ordnance, United States Navy.

Very respectfully,

AUSTIN M. KNIGHT,
Commander, U. S. Navy, President of Board.

A. C. DIEFFENBACH,
Commander, U. S. Navy (Retired).

B. W. DUNN,
Major, Ord. Dept., U. S. Army,

C. B. WHEELER,
Major, Ord. Dept., U. S. Army,

Lieutenant, U. S. Navy.

The CHIEF OF ORDNANCE, U. S. Army,
War Department, Washington, D. C.

D.

NAVAL PROVING GROUND,

Indian Head, Md., August 2, 1906.

SIR: By direction of the Bureau of Ordnance:

1. I have to submit the following estimate of the probable cost of smokeless powder at private works.

2. The cost of manufacturing 1,000,000 pounds of powder at the Indian Head works during the fiscal year recently closed has been 47.7 cents per pound, exclusive of alcohol. Every item due to its manufacture is included in this cost. All raw materials, chemicals, laboratory expenses, heat, light, power, care of grounds, buildings, etc., have been reckoned; also a charge for loss by fire based upon the mean fire loss for the last six years.

3. Included in this is an allowance of 5 per cent for a depreciation on buildings and improvements. Another allowance of 10 per cent depreciation on the machinery of the entire plant is also included.

4. In comparing the cost of powder at this plant with private manufacturers, it would be fair to assume generally that private purchasers obtain their material at least 10 per cent less than the Government does. It has been hinted to me that the Tennessee Fibre Company sells its material to private manufacturers at 4½ cents per pound; we pay 5½ cents per pound. A paper manufacturer told me several years ago, when we were paying 6 cents, he was paying considerably less for this cotton. The same thing is probably true of acid. But on known data the following amounts should be subtracted from the cost at this place:

Labor, 28.5 per cent of \$105,000-----	\$29, 925
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(We grant 28.5 holidays more than private firms, and we work only eight hours to their ten, or perhaps eleven. But taking ten hours as their day, with the holidays, they save 28.5 per cent on labor.)

Depreciation on buildings and improvements, 5 per cent per annum----	14, 760
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Deducting this from-----	44, 685
Leaves-----	474, 000

Leaves-----	429, 315
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or, say, 42.9 cents per pound to the private manufacturer.

5. The total rejections of powder amount to 1.7 per cent during the history of its manufacture. These rejections have not affected Indian

Head, and should not other, makers. However, adding 1.7 per cent to their cost we have a total of 43.6 cents. If the powder can be re-worked or used for other purposes, this item should not be considered.

6. It may be urged that there is a business hazard attached to the manufacture of this material: that is, that we may be making a different powder some day that will render much or all of the plant useless. Such an argument should have no weight, since we have already been using this powder for seven years or more, and in the account of cost given above, 10 per cent of the machinery is expended each year off the books, which would provide for a total elimination of the plant in ten years. Attention is called to the powder "Cordite," which, in spite of its manifest disadvantages, has continued in use some fifteen years without any immediate prospect of some other powder being substituted for it.

7. On the basis of 1,000,000 pounds of powder manufactured per annum, it will be seen that a price of 70 cents per pound yields a profit of \$264,000, and this considers every possible charge except the pay of the officers connected with the financial administration of the enterprise.

8. Judging from the cost of the Indian Head plant, the total investment will amount to about \$650,000. On this basis the stockholders should receive a dividend of over 40 per cent on the capital invested if the powder is sold at 70 cents. If it were sold at 55 cents per pound, this would yield 17.5 per cent profit on the capital invested and in case the orders were cut down during any one year to one-half, the profit should still be satisfactory.

Respectfully,

(Signed) JOS. STRAUSS,
Lieut. Comdr., U. S. N.,
Inspector of Ordnance in Charge.

Commander A. M. KNIGHT, U. S. Navy,
President Joint Army and Navy Board
on Smokeless Powder Specifications,
Bureau of Ordnance, Navy Department,
Washington, D. C.

SEPTEMBER 7, 1906.

SIRS: Referring to proving-ground letter 3023, of August 2, 1906:

1. I beg to call attention to the following items that should be considered in calculating the cost of powder at private factories:

(a) Powder on hand in dry houses and raw material, such as cotton, nitrate of soda, and other supplies. This will amount at a factory of the capacity of the one at Indian Head to approximately \$500,000, and must be added to the capital invested.

(b) Local taxes, which will vary in the location of the plant.

(c) The cost of indemnifying employees who have been injured.

Respectfully,

(Signed) JOS. STRAUSS,
Lieut. Comdr., U. S. N.,
Inspector of Ordnance in Charge.

JOINT ARMY AND NAVY BOARD ON
SMOKELESS POWDER SPECIFICATIONS,
Navy Department, Washington, D. C.
(Through Chief of Bureau of Ordnance.)

E.

E. I. DU PONT COMPANY,
Wilmington, Del., August 27, 1906.

AUSTIN M. KNIGHT, Commander, U. S. Navy,
*President Joint Army and Navy Board on
 Smokeless Powder Specifications,
 Washington, D. C.*

DEAR SIR: Complying with your request that we give you our reasons for opposing any reduction in the price now paid by the Government for smokeless powder, we submit the following discussion:

In opening this discussion we desire to say that, in our judgment, the price paid for the powder is far less important than its quality, and that at the present time, with the processes of the manufacture and even the composition of the powder in a more or less experimental and uncertain condition, an effort to reduce the price is likely to be false economy. With the Army and Navy it should always be the aim to have the best possible powder regardless of the cost. The desire should be to give an adequate price and to expect a constant improvement in the article. In order to produce a superior article we must be allowed a reasonable and fair margin of profit so that we may be able to purchase the best materials, employ the best skilled labor, and be allowed to work and rework the material until the desired result is obtained. If we must stop short of that because of price it is easy to determine what the natural result will be—either loss on our part or an inferior powder. We have spared no expense in our efforts to improve our product, and we should receive an adequate compensation.

At the beginning, when the price was fixed at \$1 per pound, the manufacturers had little knowledge of the subject, and their plants were not suited to economical production. Before experience had shown us how to make a profit the Government reduced the price to 80 cents a pound, and again to 70 cents, while we were making powder at a loss or with no profit. It is only within the last three years that a profit has been made. It would be a great injustice to the companies who have continued under these circumstances to produce a good powder and who have spared no expense to improve it to insist now that we must submit to another reduction, under more rigid specifications, before we have recouped the losses sustained during the earlier periods.

We are to-day selling the Government a much better powder than we sell the general trade, where we have active competition. We are paid by the Government for a superior powder to that used by the commercial trade only 70 cents per pound, while the trade is paying 80 to 85 cents.

The Government has a system of inspection that grows daily more rigid, to which inspection we do not object, but which tends to increase the cost of production. The bureaus have just adopted new specifications which are more exacting and to which they have added new and untried tests, which will probably add to the number of rejections. These specifications undertake to control each step of the processes to be used, to specify raw materials, number of washings, their duration, etc., and in the end we are still held responsible for the results.

In arriving at the cost of powder manufactured by the Government, its experts lose sight of many items of expense which the Government, pays through other channels, as salaries of officers, technical men, bookkeepers, clerks, traveling expenses, etc. The Government charges some of these items to other accounts and overlooks them in estimating the cost of manufacture of powder. Upon examination of our books we find that the following result would be obtained by taking what we are informed is the cost of powder at Indian Head on the manufacture of 1,002,000 pounds:

We find that during the past year of our operations the ratio of rejections to the amount of powder manufactured and delivered to the Government was 5.23 per cent. If from the manufacture of powder at Indian Head there be deducted the same percentage for rejections, the result would be that instead of delivering 1,002,000 pounds of powder, Indian Head would produce 949,000 pounds of acceptable powder, and the cost per pound would be increased from 47.45 cents (their cost of powder manufactured, exclusive of alcohol) to 49.98 cents, and their cost of 54.63 (including alcohol) would be increased to 57.63 cents. If to this there be added the amounts paid by our company, which have not been taken into consideration by the Government in their estimate of cost—mill superintendence, 1.96 cents per pound of powder manufactured; administrative cost, 2.98 cents per pound of powder manufactured; taxes, 0.12 cents per pound of powder manufactured; interest on investment, 7.16 cents per pound of powder manufactured—then the total cost would be 62.20 cents, exclusive of alcohol, or 69.85 cents including alcohol. This showing clearly demonstrates the fact that the only profit that we could obtain in the manufacture of powder at 70 cents per pound (and alcohol furnished by us) would be brought about by a more economical expenditure of labor in factory operations, because it is beyond dispute that the Government is paying approximately the same prices for cotton, acids, and other raw materials as we are.

Progress in the manufacture of powder sometimes causes the abandonment of whole plants, as was the case when the change from brown prismatic to pyrocellulose powder was made. This company had, at large expense, equipped two plants for the Government's use during the Spanish war, which were utilized for a short time to manufacture the powder. Experience in that war taught our Government officials that they did not want to continue the use of brown prismatic powder. The change to smokeless powder was made, and the plants became useless. The Government is at the present time considering and making extensive experiments with a new powder, which, if adopted for the service, will in a large measure destroy the value of all the present smokeless-powder plants. When these facts are considered, it should be easy to perceive the injustice which would be done us by any reduction in the price now paid.

In considering the price of powder the Board should keep in mind the amount of the contracts to be given. In our judgment the price might well be on a sliding scale. If the plants are to run on a single-shift basis, then it naturally costs more to make the powder. If the Government should again be in position to give orders for a sufficient amount of powder to run the plants continuously night and day, as in the past, it might then be a better time to bring up the

question of a reduction in price; but consider the present circumstances. During 1904 and 1905 the Government gave us sufficient orders to warrant operating our plants night and day. In order that we might be in a position to do this a very large expenditure of money was necessary, in increasing our power plants, building additional powder dry houses, magazines, and providing costly machinery. We were, furthermore, led to hope that even larger orders for powder were in prospect, because the necessity was recognized for a large surplus of powder to be on hand in case of emergency. At this same time a joint army and navy board, appointed for the purpose, conferred with us in regard to our ability to make a large extension of our plants so as to be ready for emergency in case of war. While we were engaged in making the plans called for by this Board, we were informed that our output would have to be reduced at once to less than 40 per cent of what we were making on the double-shift basis. We have been operating for the last eight months on this limited output at greatly increased expense, and the costly extensions to our plants are rendered unnecessary and useless.

We would further call the Board's attention to the fact that the policy of this company has always been, regardless of expense, to improve the powder by adopting every suggestion made by the Government. For instance, in the Government's efforts to standardize the process of manufacture of powder, we have been called upon at large expense to change our plants to insure a uniform process of manufacture. In this connection we have recognized the great importance of pure water in the manufacture of powder, and although the water supplies of two different plants had been used for upward of five years with satisfactory results, we realized that improvements in the product would result from corresponding improvements in the water supply, and we have recently engaged, of our own volition, to expend several hundred thousand dollars in order to obtain additional and better supplies of water. This expenditure will result in an improvement in the powder and a corresponding benefit to the Government.

A very important item in the cost is the rejection of powder by the Government. It may be argued that we should not produce a powder that would not meet the requirements. The art of powder making has not yet reached the point where rejections are not to be expected. Furthermore, add to this the fact that the Government is constantly changing the specifications, insisting upon making additional tests, some of which are purely empirical in their nature, so that their influence and result can not be foreseen. The chances of rejection are thus vastly increased, and should be a large item in the fixing of the price of powder.

The manufacture of powder is a hazardous business far beyond the conception of inexperienced men. The danger of fire and explosion which may destroy valuable plants is great, and greater still is the cost of life.

We may have touched on many things in this letter which you will consider irrelevant in fixing a just selling price for powder. We believe that all these factors have an important bearing on the subject, and each must be given its due weight.

To conclude our arguments we may note:

First. The necessity of your having the very best powder which can be made. Your ships and your men demand it. This can not be had if you put the price too low.

Second. The painstaking and careful attention which we have given to the improvement of the powder, the money which we have risked in our experiments to develop it, and the capital which we are risking to-day in our efforts to produce for you a new and better powder are all worthy of compensation and the Government should consider its own interests by encouraging us.

Third. During the experimental stage of the manufacture of smokeless powder, which continued until the last three years, we realized little or no profit. It is discouraging to think that such a condition may continue. Progress in the production of powder is the most expensive item to be considered, for it means constant expenditure of money, which rarely develops value, and when it does produce something the result means entire abandonment of old methods. To illustrate, you are to-day experimenting with a powder which has already cost us several hundred thousand dollars. If the experiment is a failure the money invested is lost. On the other hand if it succeeds our present plants are, in a large measure, rendered valueless. We recognize the importance and value of the initial steps taken by the Government in developing the present powder and the work done in the Government laboratories. It is a fact, however, that the manufacture would not have reached the present standard had it not been for the very large expenditure of money made by us in experiments and in designing and perfecting the necessary machinery. We have freely given to the Government the benefit of these experiences for use at its own plants. We are not desirous of taking to ourselves an undue credit for this development, but we believe that the bureaus will agree with us that the art of manufacture would not have reached the present improved condition had we not undertaken the work, for the reason that Congress has always failed to appropriate sufficient funds to enable the Indian Head plant to do it.

Fourth. We are selling to the Government to-day a better powder made under rigid inspection and subject to rejection for a less price than we are paid by the commercial trade, which takes powder made without specifications or inspection and in which we have constant, wide-awake, active competition. This in itself is sufficient proof that the Government is buying its powder at a fair and just price.

Fifth. The Government by its own experience at Indian Head is well aware of the cost of making powder. If to this cost there be added a fair margin to correspond to the items which we have enumerated and to the losses which we must allow for, we feel sure that it will be shown that the present price is not unreasonable, but is a just and fair price made necessary by the expensive methods and requirements of manufacture and rigid inspection and tests to which the powder is subjected.

This company has a record for the past one hundred years of always holding its best intellect, its money, and its plants wholly at the service of the Government in all times of need and of treating the Government fairly and honestly in all its dealings, and we do not deem it necessary that we should give additional proof now of our willingness to do the same in the future.

Yours, very truly,

E. I. DU PONT COMPANY,
By E. G. BUCKNER.

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JOINT ARMY AND NAVY BOARD ON SMOKELESS POWDER,
Washington, October 22, 1907.

1. The Board met at the Navy Department this day. Present: Lieut. Commander Joseph Strauss, Maj. B. W. Dunn, U. S. Army; Maj. O. C. Horney, U. S. Army; Maj. J. E. Hoffer, U. S. Army, and Lieut. T. C. Hart, U. S. Army. The du Pont Company was represented by Mr. H. F. Brown, chemical director.

2. The inclosed statement of the cost of manufacture at the Indian Head plant for the fiscal year ending June 30 was presented and considered the basis for fixing the price of powder. From this statement it is found that powder is being manufactured at a cost of 4.2 cents per pound less than it was for the fiscal year ending June 30, 1906. Of this reduction, 3 cents per pound is due to the use of cheaper nitrating material and 1.2 cents to increased output. In recommending a price for new contracts the Board does not deem it proper to consider as a factor the resulting cheapening at the Indian Head plant due to the increased output, since the private manufacturer, having but one market, must limit his output to the demands of the Government.

3. The price of 69 cents per pound fixed last year was based upon the cost at Indian Head. That cost has now been reduced 3 cents per pound, and the reduction rests wholly upon the lessened cost of raw material. Allowing for possible fluctuations in the price of raw material and considering that the manufacturer should also profit by its reduction, the Board recommends that the price of powder be reduced by 2 cents per pound—that is to say, that the price on new contracts be fixed at 67 cents per pound, the manufacturer to furnish the alcohol.

Respectfully,

JOS. STRAUSS,
Lieut. Commander, U. S. Navy.
 B. W. DUNN,
Major, U. S. Army.
 O. C. HORNEY,
Major, U. S. Army.
 J. E. HOFFER,
Major, U. S. Army.
 T. C. HART,
Lieutenant, U. S. Navy.

The CHIEF OF BUREAU OF ORDNANCE,
Navy Department, Washington, D. C.

Referring to Bureau's indorsement No. 19277/34, of the 5th instant, on the communication of the Joint Army and Navy Board on Smokeless Powder:

1. I beg to state as follows:

Summary of expenditures for the production of powder for the past year at Indian Head.

Amount actually expended during the year-----	\$454,790.64
Machinery written off-----	13,829.10
To the last item we should add, in order to bring the item of "Machinery depreciation" up to 10 per cent, as was done last year -----	10,991.83

Fire losses, one-seventh of the total.....	\$6,962.46
Various items, including a share of office and laboratory force, watchmen, railroad and other repairs not counted in to the cost of powder in invoicing it.....	13,812.66
Five per cent depreciation on buildings.....	31,180.65
Total	<u>531,557.84</u>
Dividing by 1,047,063, product for the year, the cost per pound is...	0.5077
Deduct cost of alcohol expended per pound.....	.094
Cost of powder without alcohol.....	.4383

In comparing this with the cost during the past fiscal year, which was 47.4 cents, we find that it has been cheapened 3.6 cents; this is accounted for to the extent of 2.4 cents per pound by the fact that the cost of cotton per pound of powder in 1905-6 was 7.21 cents, and in 1906-7 4.82 cents, the reduction being due to the use of the cheaper Tennessee fiber. The remaining 1.2 cents is accounted for in the fact that the fixed charges, amounting to some \$77,000 plus a considerable share of the labor, are not increased with the increased output.

THE COMMITTEE ON NAVAL AFFAIRS.

Friday, January 10, 1908.

The committee this day met, Hon. George E. Foss in the chair.

STATEMENT OF REAR-ADMIRAL N. E. MASON, CHIEF, BUREAU OF ORDNANCE—Continued.

The CHAIRMAN. The first item is on page 25, "New batteries for ships of the Navy: For completing the work of modifying 4-inch 40-caliber mounts, 5-inch 40-caliber mounts, and providing new sights for same, \$135,000." That is an increase of \$35,000?

Admiral MASON. Yes, sir. The Bureau estimated in 1907 under this head for \$320,000, but Congress failed to appropriate same, and such of the work as was absolutely necessary for fitting out ships for recommissioning was taken out of the appropriation "Ordnance and ordnance store." These, by the way, are small cruisers, some of which are in the West Indies, China, etc. Congress at its last session appropriated the sum of \$100,000 for continuing this work; this amount will be entirely expended during the present fiscal year, and the additional sum asked for is required for completing the work.

Although this amount of \$135,000 will eventually be necessary for the purpose of modifying these mounts, it is now evident that probably not more than \$60,000 of this sum can be utilized during the next fiscal year, and it is suggested that the appropriation be so reduced. This is probably caused by the fact that it will be impossible to get hold of the mounts in service for the purpose of modification.

The CHAIRMAN. What does it cost per ship?

Admiral MASON. It is the cost per gun, and it depends upon how much modification there is.

The CHAIRMAN. You reduce the estimate to \$60,000?

Admiral MASON. Yes, sir. That is, of course, provided the request next year will be favorably considered.

The CHAIRMAN. The next item is: "For replacing 3-pounder and 6-pounder guns and mounts and sights on board battle ships and armored cruisers by 3-inch 50-caliber guns, mounts, and sights, \$830,000?"

Admiral MASON. The secondary batteries of the vessels of the *Indiana*, *Kentucky*, and *Alabama* classes consist of 6-pounder guns; the secondary batteries of battle ships of later classes and of armored cruisers consist of 3-inch 50-caliber guns and 3-pounder guns. In the *South Carolina* and *Michigan* the 3-pounder guns are first omitted, except for two on each vessel which are retained for saluting purposes only.

It is proposed to remove all 3-pounder and 6-pounder guns from all these vessels, retaining only two on each vessel for saluting, and to substitute such number of 3-inch 50-caliber guns as can be mounted on board, having due consideration for the facilities for mounting and serving the guns, for the question of ammunition stowage and supply, and for the changes of weights and displacement involved.

The object of furnishing a secondary battery of small-caliber rapid-fire guns to an armored vessel is to give the vessel adequate means of defense against torpedo attack. For this purpose the turret guns and broadside guns of 6-inch and 7-inch caliber are not entirely adequate, owing to their slower rate of fire and the comparatively small amount of ammunition for such guns that can be carried.

Until within the past two or three years the maximum effective range of the torpedo was about 1,000 yards; that is to say, a torpedo boat, in order to discharge a torpedo at a battle ship with a reasonable chance of hitting, was obliged to approach to within 1,000 yards. At this range the 3-pounder or 6-pounder gun, firing from ten to twenty shots a minute, was effective as a defense against such attack.

Owing to the improvements in torpedoes during the past two or three years, this effective range has been increased to 3,000 yards, and we now have a 4,000-yard torpedo. Not only has the range of the torpedo been increased, but the types of torpedo craft have undergone changes which make these boats less vulnerable to gun fire, and to attack them successfully guns of greater range and penetration are needed. The 3-pounder and 6-pounder gun can not do effective work against a modern torpedo boat at the ranges at which they must be disabled if they are to be prevented from making a successful attack.

In the latest type of battle ship, exemplified in the *Delaware* and her sister ship, the 5-inch 50-caliber gun has been adopted for the secondary battery as being the most effective gun now designed for torpedo defense, giving due weight to its range, penetration, rapidity of fire, and ammunition supply.

For ships already built, on which considerations of amount and distribution of ordnance weights, battery already carried, available space for the mounting of new guns, and space for ammunition storage are important, it is imperative that 3-inch 50-caliber guns be supplied if the vessels are to be kept up to the highest possible degree of effectiveness. The estimate for 166 of these guns and mounts is therefore submitted as representing the required expenditure for guns actually required for the vessels of the several classes named.

Mr. LOUDENSLAGER. "Three-inch 50-caliber," what does that mean?

Admiral MASON. Three inches diameter of bore, 50 calibers long.

The CHAIRMAN. Is that better than the 3-pounder or 6-pounder?

Admiral MASON. Yes, sir; it is very much better; it is a heavier gun.

Mr. LOUDENSLAGER. How much heavier? What does it fire?

Admiral MASON. It is a 14-pounder; the projectile is 3 inches in diameter.

Mr. THOMAS. Fifty times as long as the diameter?

Admiral MASON. Yes, sir. We speak of all the large guns in calibers to represent the length; but with small arms, as caliber .30 rifle, the caliber represents the diameter of bore, or three-tenths of an inch. It is a distinction which has been used for years.

I think that appropriation is very necessary. The Department desires it, and nearly every report that comes in from the inspection of a vessel says that these guns are now useless, because the torpedo range has been increased from 1,000 to 4,000 yards.

The CHAIRMAN. Will \$830,000 do it all?

Admiral MASON. I think I divided that by two, if I remember correctly. No; this amount will do it all.

Mr. PADGETT. How long has the past experience shown that the torpedo guns are available for use before they are supplanted by some improvement?

Admiral MASON. The torpedoes have been rapidly increasing in range.

Mr. PADGETT. Yes, I understand; but what I wanted to get at was this: For instance, we have a type of to-day and that is supplanted by an improvement of type; how long do they remain available?

Admiral MASON. The guns?

Mr. PADGETT. Yes, sir.

Admiral MASON. Well, the 3 and 6 pounder guns will be no longer used by the battle ships; they probably would be used for base purposes and for the smaller auxiliary cruisers.

Mr. PADGETT. What I wanted to get at was this: Past experience has shown that no longer is one type of gun available before the improvement or an advance in the science of war or the improvement of guns supplants it with a better one?

Admiral MASON. It is hard to say. When I started in the service we used 1-pounders for the torpedo defense. Fifteen or twenty years ago the range of the torpedo was 1,000 yards. The ordinary range was from 600 to 800 yards. It jumped up to 1,000 yards and then to 2,000 yards, and last year there were quite a number of 3,000-yard torpedoes. We are now buying some 4,000-yard torpedoes.

Mr. LOUDENSLAGER. There may be two changes in twelve months?

Admiral MASON. Yes, sir; it is on a par with the way we have been increasing the rapidity of fire in the last few years.

The CHAIRMAN. The next item is, "For the purchase or manufacture of new ammunition-hoisting arrangements for all turret vessels to and including the *South Carolina* and *Michigan*, comprising 28 battle ships, 13 armored cruisers, and 10 monitors (176 turrets), \$2,112,000." That is a new item?

Admiral MASON. Yes, sir.

The ammunition-hoisting arrangements in the turrets of nearly all vessels now in service were designed before the introduction of smokeless powder and at a time when the rapidity of fire of turret guns was from one-fifth to one-tenth what it now is. Since the installation of these hoists the introduction of smokeless powder has permitted a greatly increased rate of fire and has also introduced elements of danger into the service of guns in turrets which did not exist when guns used ordinary brown powder and fired slowly.

In order to meet existing requirements, regarding safety and rapidity of fire, it is necessary to replace all turret hoists by hoists of new design which will accomplish two objects, viz:

(a) Supply ammunition as rapidly as it can be fired.

(b) Effectively separate turrets from handling rooms below so that the effect of any accidental ignition of powder in either place may be localized.

There are 28 battle ships, 13 armored cruisers, and 10 monitors involved, carrying an aggregate of 176 turrets, and the estimated cost of building new hoists is \$12,000 per turret, which does not include the cost of removing the present hoists and installing new ones; this cost would be borne by the Bureau of Construction and Repair. The exact types of the new hoists are not yet determined, but several designs are now in preparation. This sum of \$2,112,000 represents the total amount necessary to be expended under the cognizance of the Bureau of Ordnance for changing the ammunition-hoisting arrangements for all turret vessels down to the *South Carolina* and *Michigan*, which have already been changed during construction. It is considered that it will not be possible to expend the whole amount in one year on account of the necessity of purchasing material and motors, etc., and also the probable difficulty of sparing all the vessels of the fleet from the line long enough to do the work.

It is requested, therefore, that the amount appropriated this year be \$1,100,000, with the understanding that a similar amount will be appropriated for the following fiscal year if asked for.

The CHAIRMAN. You are asking for \$1,100,000?

Admiral MASON. Yes, sir. After going over the matter I came to the conclusion that we could not get all the material and at any rate we probably could not get the vessels from the line.

Mr. LOUDENSLAGER. Will this apparatus be installed on the Pacific coast?

Admiral MASON. It will probably all be manufactured either at the Washington yard or by contract by one or two of the big firms of the country.

Mr. LOUDENSLAGER. Will you ship them to the Pacific coast?

Admiral MASON. For the vessels that are there. Those that are in this vicinity or if they come back we will put the apparatus on here. But of course we want to start to manufacture them on the 1st of July.

The CHAIRMAN. You have not fully settled on the design?

Admiral MASON. We have a design for the *South Carolina* and *Michigan* which will in all probability answer. We have also an experimental hoist.

Mr. THOMAS. Are they electrically equipped?

Admiral MASON. Yes, sir; but it is really a two-stage hoist.

Mr. THOMAS. Will you use the old equipment?

Admiral MASON. Only a small portion of it; it is impossible on account of the room to have the two. We have adopted another way. We have a hand arrangement in case the electrical equipment gives out.

The CHAIRMAN. The next item is, "For replacing 8-inch, Mark V, guns (40 calibers) with 8-inch, Mark VI, guns (45 calibers) on the U. S. S. *Maryland* and class (20 guns), \$502,000?"

Mr. MUDD. It says "United States ship *Maryland* and class. Does that mean ships of the same general type?"

Admiral MASON. Yes, sir; the *Maryland* class. To place the 8-inch, Mark V, guns with 8-inch, Mark VI, will take 20 guns for the *South Dakota*, *Maryland*, *California*, *Pennsylvania*, and *West Virginia*. The estimate includes the cost of modifying the slides. These replaced guns will be held as reserve guns when removed from ships, being relined as necessary. There were no similar estimates last year.

The *Colorado* during the last target practice in China blew off the muzzle of one of her 8-inch guns, and we are now replacing her guns with four reserve guns. If you read last year's testimony about the description of the blowing off of the muzzles of the *Iowa* guns, you will find that the guns were designed for brown powder and lower velocities, and have not sufficient strength at the muzzle. Now, we wish to put in the stronger guns and take these old guns out.

The CHAIRMAN. Can you do all this work this year?

Admiral MASON. We will start it. We will have to buy the forgings or contract for the guns.

The CHAIRMAN. What about these other guns, "For replacing 12-inch, Mark III, guns (40 calibers) with 12-inch, Mark V (45 calibers) on all battle ships (18 guns), \$1,108,000."

Admiral MASON. If you will take that item into consideration with the item immediately below it, "For relining eight 12-inch, Mark III, guns?"

The CHAIRMAN. Yes, sir.

Admiral MASON. "For replacing 12-inch, Mark III, guns (40 calibers) with 12-inch, Mark V, guns (45 calibers) on all battle ships (18 guns), \$1,108,000, and also for relining eight 12-inch, Mark III, guns, \$93,000." The Bureau now requests that these two appropriations be changed to read as follows: "To reline and convert 12-inch, Mark III, guns to Mark IV guns (\$380,000), and to purchase and manufacture five Mark IV, 12-inch guns (\$325,000), \$705,000."

This appropriation is to take the place of the two appropriations mentioned above for replacing and relining 12-inch guns.

There are now on hand forty-two 12-inch, Mark III, guns, 40 calibers in length, but not hooped to the muzzle. These are still excellent guns and as soon as they are changed to Mark IV by the addition of muzzle hoops and relined where necessary will be efficient weapons for some time to come.

The 5 Mark IV guns to be manufactured are intended to be used as reserve guns to replace others during such conversion.

The sum of \$380,000 is only sufficient for the conversion and relining of half the Mark III guns in the service, and this reduction in the amounts asked for is with the understanding that a similar sum will be requested for the next fiscal year.

It is not considered probable that the conversion of all of them could be undertaken or completed in one year.

The CHAIRMAN. The next item is: "For replacing Mark IX Modern 2-firing locks with Mark X firing locks on 5-inch and 6-inch guns, \$45,000?"

Admiral MASON. This is a new item and the Bureau is of the opinion that it should be allowed, as the Mark X lock is so superior to the Mark IX Modern 2, for safety and everything else, that the latter should be withdrawn from the service. This estimate represents about 300 locks, which cost about \$150 apiece. They add to the safety and rapidity of firing, and the appropriation is asked for especially here because the regular working ordnance appropriation will not permit the expenditure.

The CHAIRMAN. The next item is: "Toward replacing present small arms and automatic guns with those of modern pattern, \$1,195,500?"

Admiral MASON. This is a question which has been up for the last three years. It has failed each year.

The Bureau has for a number of years past asked the Department to allow this estimate, but the Department has not permitted it. The Bureau is of the opinion that the time has now arrived when steps should be taken to replace all the small arms and automatic guns in the Navy with the latest model, as those now in use are of an obsolete pattern.

It is manifestly dangerous to continue the issuing to the service of two types of rifles and two calibers of machine guns, requiring different kinds of ammunition, and now that the Army has adopted and is equipping its forces with the United States magazine rifle, model 1903, which requires ammunition of yet another type, there would be three types of rifles and machine guns, requiring three kinds of ammunition in case of a landing force composed of detachments from the Army and the Navy. This addition to the appropriation is earnestly recommended in order that the Navy may be completely equipped with rifles and machine guns of one type, using one kind of ammunition, and interchangeable with the rifles and machine guns of the Army.

This sum can all be expended in the next fiscal year, the Ordnance Department of the Army having stated that they could supply the rifles and ammunition promptly.

The CHAIRMAN. How long ago were the present guns put in?

Admiral MASON. These guns have been in the service six or eight years. You know, the Army has changed the caliber, changed the ammunition, using a different charge, so we can not exchange their guns. As it is now the Army and the marines would have two kinds of ammunition and different kinds of guns on the firing line if serving together, which is of course all wrong. When we join with the Army or the Army comes with us, we should be able when an emergency exists to exchange ammunition.

Mr. LOUDENSLAGER. How long is it since the Army made the change?

Admiral MASON. I think about three years.

Mr. LOUDENSLAGER. Are they liable to change again in the next year or two?

Admiral MASON. I do not know.

Mr. THOMAS. Does the Army work in conjunction with the Navy on those things?

Admiral MASON. In this case the Army has a large number of small arms, while we only have a small number compared to theirs.

Mr. THOMAS. We have to go to them on this?

Admiral MASON. That is our policy. For instance, where they have boats or anything of that sort they come to us and adopt our standard, and we think it is proper, inasmuch as we only use the small arms when we have landing parties, etc., to take their guns and their experience.

Mr. ROBERTS. What is to become of the present obsolete and small arms?

Admiral MASON. They will have to be either condemned and sold or turned over to the militia. I think the militia are all asking for the latest pattern.

Mr. ROBERTS. Would there be any market for them; could you get any substantial price?

Admiral MASON. Not a very large price. The last ones which were sold—of course they were not in good condition, they were condemned because of faults—brought a very small amount, \$2 or \$3 a gun.

Mr. ROBERTS. Please tell the committee just the character of the small arms?

Admiral MASON. The Army gun?

Mr. ROBERTS. I mean those you want to replace.

Admiral MASON. They are United States magazine rifles, Model 1898; it is the Krag-Jorgensen.

Mr. ROBERTS. You do not mean to replace any of the automatic guns aboard ship?

Admiral MASON. Yes, sir. Of course if we have to change the small arms we must change the other guns too.

Mr. ROBERTS. All you want to change are the rifles, not the automatic guns that are a part of the ship?

Admiral MASON. Both. They use the same ammunition and we want to change the whole outfit. That is what the appropriation is for, and it is increasing, of course, each year. The first year I came before the committee I asked for \$900,000, and it is gradually getting up, because in order to put our ships in commission we have been compelled to buy new Krag-Jorgensen rifles, which type the Army has discarded.

Mr. ROBERTS. Does it contemplate any change in the service revolver?

Admiral MASON. Not at present.

Mr. ROBERTS. Under this appropriation?

Admiral MASON. No, sir. The revolver uses a different ammunition entirely.

Mr. ROBERTS. Is the navy revolver like the army revolver?

Admiral MASON. I do not think the Army have decided on any particular type. They have caliber .38; some are advocating caliber .50 because the .38 caliber would not stop a man quick enough.

Mr. PADGETT. You stated that when you first came before the committee you asked for \$900,000 and that it is gradually increasing. Have you any idea what the ultimate limit will be to make this change?

Admiral MASON. We are bringing in more new guns, and I can not tell what the ultimate limit will be. Each new battle ship you appropriate for means 350 or more small arms, and as we can not well buy new guns for one battle ship with one kind of ammunition we have to buy new guns of the old type.

Mr. PADGETT. Are you furnishing the new battle ships, which are going into commission, with obsolete guns?

Admiral MASON. Each time when we are getting the outfit of a battle ship together we send to all the yards and stations and get all the guns we can and repair them and fix them up, but of course we can not get enough and we have to buy some new ones. I think within six months we have made a request on the Army for a couple of thousand of those guns. However, until we can get to the new caliber we will have to buy the old obsolete guns.

The CHAIRMAN. What do the new guns cost?

Admiral MASON. I am not sure of the price—\$13 to \$15.

Mr. THOMAS. What is it called—the style?

Admiral MASON. The army magazine rifle, Model 1903, I think it is.

Mr. THOMAS. The one you recommend now?

Admiral MASON. Yes, sir.

Mr. THOMAS. How much money would it take to replace the obsolete guns and stop the purchase of obsolete guns?

Admiral MASON. It will cost \$1,195,000 for small arms and machine guns.

Mr. THOMAS. Would that \$1,195,000 here estimated for take from the service the obsolete guns and replace them?

Admiral MASON. Yes, sir.

Mr. THOMAS. And bring them up to date?

Admiral MASON. Yes, sir; up to date. I doubt if we would then have to ask for any further appropriation.

Mr. THOMAS. Except for the new ships going into commission hereafter?

Admiral MASON. They would come in the regular estimates for those ships. They would not appear as guns at all. They would appear as armament for the ships.

Mr. ROBERTS. In recent years you have always adopted the army pattern of rifle for the Navy?

Admiral MASON. In recent years. Upon one occasion, a number of years ago, the Army was slow in adopting a type, and the Navy had a board of its own and adopted what is called the 6-millimeter rifle.

Mr. ROBERTS. That you use now?

Admiral MASON. We have quite a number of those in the Navy.

Mr. LOUDENSLAGER. You generally supply the marines with ammunition?

Admiral MASON. Yes, sir.

Mr. LOUDENSLAGER. And it is only a bare possibility that in time of war you may want to go over to the Army—to go around with the Army?

Admiral MASON. The marines go with the Army.

Mr. LOUDENSLAGER. But you supply them with powder?

Admiral MASON. They buy their ammunition from the Army and we buy our ammunition from the Army. We ought not to start a cartridge factory for the 25,000 or 35,000 or 50,000 small arms, with a different ammunition from the Army when they are making 5,000,000 to 10,000,000 rounds. I really think we ought to have the same caliber of small arm that they have.

The CHAIRMAN. The next item is: "For fire-control instruments for ships of the Navy," \$300,000?

Admiral MASON. The Bureau last year submitted an estimate of \$567,000 for the purchase of fire-control instruments for battle ships, cruisers, and monitors. The amount appropriated for the purchase of fire-control instruments was \$300,000. This sum will be expended during the present fiscal year, but as \$300,000 is not sufficient to provide instruments for all the ships, some ships can not be fitted. To complete the installation \$300,000 more will be required.

The most striking feature in the history of the Navy during the last few years has been the progress in gunnery. Results of single gun shooting have been such as were thought impossible a few years ago, and in the target practices that have been conducted in accordance with the new rules it has been made apparent that team work by the whole battery is not only possible, but that by such team work the effective fighting power of the ships can be immensely increased. To properly secure this team work a system of communication is necessary, and this system of communication, heretofore considered unnecessary because such highly developed team work was not considered possible, arranged with special attention to the special character of the information to be communicated, is the fire-control system it is desired to install.

There has of course been installed in ships a system of communications for controlling the fire, but the increase in the rapidity of fire, due to improved ordnance material and improved methods of training, has reduced the time permitted for the transmission of ranges and deflections. In other words, the older systems installed are now too slow in operation to keep up with the guns. In the past, when there was an interval of two minutes between shots from a turret gun, there was plenty of time to note the fall of shot and send the necessary correction of range in case of a miss or the same range in case of a hit before the gun was ready to fire again; but nowadays with possibly only thirty seconds between turret salvos and ten to fifteen seconds between broadside salvos, a quicker means of transmission of ranges and deflections is necessary. The standard of accuracy has been raised also, and that calls for a better system of transmission.

The following ships should be fitted with new instruments:

BATTLE SHIPS.—*Oregon, Massachusetts, Indiana, Iowa* (practically no system); *Georgia, Louisiana, Minnesota, Nebraska, New Jersey, Rhode Island*—10 ships.

ARMORED CRUISERS.—*Washington, Tennessee, California, South Dakota, Pennsylvania, Maryland, Colorado, West Virginia*—8 ships.

PROTECTED CRUISERS.—*Charleston, Milwaukee, St. Louis*—3 ships.

Besides instruments for communication, there are range finders, for picking up the range, range projectors, for calculating the rate at which the range is changing, and range keepers, for predicting the range, the rate of change and original range being known.

Range keepers for all ships will have been provided before July 1. Range projectors will have been provided for battle ships and armored cruisers, but 20 more, costing \$200 each, are needed.

There are 60 range finders on hand, a sufficient number for the battle ships and armored cruisers, but the increase in fighting ranges of heavy guns makes it desirable to get range finders more suitable for long ranges than those now on hand for use on battle ships. The short-base range finders will be suitable for use in cruisers, gunboats, and destroyers, and can be transferred to such vessels. New long base range finders (60) should be furnished battle ships and armored cruisers.

The table shows how the money can be expended :

Ten battle ships at \$15,000-----	\$150, 000
Eight cruisers at \$12,000-----	96, 000
Three cruisers at \$10,000-----	30, 000
	<hr/>
	276, 000
Range finders and projectors-----	24, 000
	<hr/>
	300, 000

The CHAIRMAN. You consider this important?

Admiral MASON. It is very important.

The CHAIRMAN. Do you need the full amount of this estimate?

Admiral MASON. Yes, sir; I think we will need it all this coming year.

Mr. ROBERTS. Will you please describe to the committee the fire-control system, what it consists of?

Admiral MASON. It consists, in the first place, of a range finder to find the range.

Mr. ROBERTS. Do you have more than one range finder on a ship?

Admiral MASON. There should be two. Very few of the battle-ships at the present time have more than one.

Mr. ROBERTS. Are those both for use, or is one a reserve?

Admiral MASON. There are two different fire-control stations.

Mr. ROBERTS. Are those range finders both in use or is one a reserve?

Admiral MASON. They are both in use, in action. They can change from one station to another, in case of accident. One fire-control station would control the fire of the turret guns, while the other would control the fire of the other guns, and the transmitters transmit the range to the gun pointers.

Mr. ROBERTS. What are those instruments

Admiral MASON. Range transmitters.

Mr. ROBERTS. Can you give us an explanation that the lay mind will comprehend?

Admiral MASON. The range and deflection instruments consist of range transmitters, range receivers, deflection transmitters, and deflection receivers. They are electrical instruments by which the ranges and deflection are signaled from a central control station to the individual isolated gun positions.

Mr. ROBERTS. Are they automatic instruments, or telephones, or what?

Admiral MASON. These instruments I am talking of are electrical. instruments which transmit the range; they are not telephones.

Mr. ROBERTS. Transmitted on indicators?

Admiral MASON. Yes, sir. They transmit the range within 25 or 50 yards, depending on the marking of the indicators and the deflection within the deflection due to one knot's speed.

Mr. ROBERTS. What goes to make up this fire control?

Admiral MASON. Range finders for finding the range and range projectors for calculating the rate of change of range located in the fire-control stations aloft: Speaking tube and telephone communication from fire-control stations aloft to central control station, range keepers for showing changes of range, range transmitters and deflection transmitters in central control stations, telephone and voice

tube communications from central control station to guns, and range and deflection receivers at guns.

Mr. ROBERTS. Do the ships equipped with this fire-control system have to rely solely on it? Is there any system besides this which you are now describing aboard the ships?

Admiral MASON. No, they will have to rely upon that until it is knocked out.

Mr. ROBERTS. If it is knocked out, then what?

Admiral MASON. The system is designed so as not to be easily knocked out. The exposed part, the line of communication from the stations aloft to the central station is separated from the part from the central station to the guns and damage to the exposed part does not disarrange the other. The lines of communication from the central station to the guns are as well protected as anything in the ship and will probably remain intact under a heavy fire. In case the exposed part is destroyed, material is provided for its repair, and the conditions are such that this can be easily and quickly accomplished.

Mr. ROBERTS. Does that put the whole system out of operation?

Admiral MASON. Oh, no; just the exposed parts, which can be repaired quickly.

Mr. ROBERTS. Anything happening in the central station would put it all out of operation?

Admiral MASON. Yes, sir. But the central station is so well protected that damage is not anticipated as long as the ship floats.

Mr. ROBERTS. How would they control the firing under those circumstances?

Admiral MASON. By telephones and by speaking tubes and by messenger—and finally by control at the gun itself.

Mr. ROBERTS. Is much of the apparatus that is used in this system of fire control patented?

Admiral MASON. I think the range transmitters, the kind we are using on the battle ships now is patented by the Sub-target Gun Company, of Boston. One of the types is controlled by Vickers' Sons & Maxim. We are putting on the scout cruisers another kind of instrument manufactured by the General Electric Company. We are trying to get competition. (As a matter of fact, the Sub-target Gun people have the best instrument so far.)

Mr. ROBERTS. Does your Bureau install this fire-control system on the ships?

Admiral MASON. It is installed by three bureaus. We furnish the instruments, the Bureau of Equipment furnishes the wires, telephones, and speaking tubes, and the Bureau of Construction and Repair installs them in the ship. We have arranged with the Bureau of Equipment to buy certain material usually furnished by Equipment, but which can legally be purchased by Ordnance from this appropriation in order to fit out certain ships which otherwise could not be completed on account of the Bureau of Equipment not having the necessary funds, and for which Ordnance instruments were ready.

Mr. LOUDENSLAGER. Do they pay for it out of this appropriation?

Admiral MASON. We buy the instruments. Those bureaus do not pay for it out of this appropriation, except as I have just stated.

Mr. LOUDENSLAGER. They have a separate appropriation?

Admiral MASON. I do not know whether they pay for the work out of the regular appropriation or not, but think they have to do so.

Mr. BUTLER. Is this the device that enables the men to do the accurate shooting?

Admiral MASON. Yes, sir. It enables the ship to do accurate shooting by making team work possible.

Mr. THOMAS. They use it only in target practice?

Admiral MASON. Oh, no. Of course, we use it in target practice to get training, but its main purpose, however, is for use in battle.

Mr. GREGG. I understand that three bureaus are concerned in installing these instruments. Is this \$300,000 the entire cost?

Admiral MASON. This is the cost of the Bureau of Ordnance.

Mr. PADGETT. This summer when I was aboard one of the ships my recollection is, if I am accurate in my memory, that the officer said that down to 50 yards was about the limit of accuracy of the range finders?

Admiral MASON. Yes, sir.

Mr. PADGETT. And that below 50 yards they had to adjust it by experiment: that the machine would go down to a range of 50 yards, but not below that. Are there any now being made that are more accurate than 50 yards?

Admiral MASON. You are speaking of range finders?

Mr. PADGETT. Yes; I suppose so.

Admiral MASON. The accuracy decreases as the range increases. For instance, at 500 yards the range finder will give you the distance nearly accurate, but when you get off to 8,000 and 10,000 yards the errors are magnified. Now, for the battle ships we want to get what we call a longer base range finder. Instead of having a 3-foot base we want to get a 9-foot base, which, of course, increases the accuracy for long distances. These short-base finders we will put on the smaller cruisers and the destroyers.

Mr. PADGETT. Then you will have one that is more accurate than 50 yards?

Admiral MASON. Yes, sir; more accurate than the present one.

Mr. DAWSON. Has the Department received any information regarding the recent experiments in the British Navy, the firing at the old *Hero*, especially as it concerned the fire-control apparatus?

Admiral MASON. We have received nothing definite, except newspaper clippings. We received quite a number ourselves and then we received from our Office of Intelligence a number of newspaper articles that were sent to them.

Mr. DAWSON. Is it your understanding that the experiments were made primarily to determine the effect upon the fire-control service?

Admiral MASON. I know they tried the fire-control system, but whether or not it was primarily for that purpose, I do not know. I know they were in touch with other information. I do not know the effect on the instruments down below or the effect on the people in the turret. I do not think there is any definite data in the newspaper articles. When they want to keep anything quiet you know how unreliable newspaper articles are.

Mr. ROBERTS. Is this fire-control system installed on one of the masts?

Admiral MASON. It will be either in the fire-control top of the regular mast or on a mast of its own. Part of it will be exposed aloft, but most of it will be protected as much as the guns are—as

the leads and communications are from the protected central station to the guns behind armor.

Mr. ROBERTS. What possibility is there to install this behind armor?

Admiral MASON. Not any in the opinion of the present experts. The present method is to install them a good height above the surface of the water. Of course I am speaking of the exposed part which goes aloft.

Mr. HOBSON. Have they made any effort to adopt the reflection mirror, something like the eye on the submarine?

Admiral MASON. They have not; they have not tried anything of that sort. It would be an excellent thing if the periscope did not have to be very large; however, it would be a target apt to be struck. It would possibly be hard work to keep the target or the vessel you are aiming at in the field. We have not tried it yet.

Mr. HOBSON. The instrument would be somewhat similar to the one on the turret.

Admiral MASON. It is possible. There are a number of schemes. A number of devices of that sort have been suggested.

Mr. HOBSON. Has the Department experimented at all? I noticed when you mentioned the manufacture of these instruments that you mentioned private companies. Of course they will be manufactured by private companies, but did the private companies, and do the private companies, carry on the experiments on which they get results, or does the Bureau of Ordnance likewise carry on experiments?

Admiral MASON. We very seldom experiment with instruments of that nature except to test and try out those that are offered. We have no facilities for doing fine machine work, and have so much work of our own with gun sights, etc., that we generally prefer to leave it to people who can manufacture such machines easily. The system is developed by testing. Whenever they come with a device we try it out in competition with others.

Mr. HOBSON. We have shops in the Navy and have competent men, and I would like to know whether you utilize them?

Admiral MASON. We do. Whenever there is a chance we make use of their knowledge, but generally in criticism and testing of the work or machines submitted by outsiders.

Mr. ROBERTS. Is the fire control in foreign navies installed in the same manner as in ours—in the masts?

Admiral MASON. Yes, sir; as far as I know.

The CHAIRMAN. The next item is: "For the manufacture, purchase, repair, and maintenance of a reserve stock of mines and mine appliances, \$300,000."

Mr. LOUDENSLAGER. Can you tell us why we should have two items for mines? Why should they not all be in one item?

Admiral MASON. The other appropriation of \$100,000 was for the mines for the Navy—that is, for the two mine ships. That was one proposition. This reserve stock is for mines for the advanced base outfits.

Mr. LOUDENSLAGER. Why should it not all be in one item?

Admiral MASON. It could be all for mines, except one is for the use of the Navy on ships afloat and the other is for the advance base outfits.

The CHAIRMAN. Last year we appropriated \$100,000, and this year the estimate is for \$300,000. How much more are you likely to ask for?

Admiral MASON. The General Board estimates that we need 2,500 mines in reserve. This \$300,000 will provide 300 out of the 2,500.

The CHAIRMAN. They cost \$1,000 apiece?

Admiral MASON. Yes, sir. We have entered into a contract for the hundred at about that price in this country.

Mr. BUTLER. Is there any competition in the market for these mines?

Admiral MASON. No; you can not very well have competition. The mine we are buying is being made by the Bliss company, of this country.

Mr. BUTLER. Are they the torpedo builders?

Admiral MASON. Yes, sir.

Mr. PADGETT. I understood that the \$100,000 for mines on page 24 of the bill was tentative upon the granting of an appropriation for a ship that was to be asked for subsequently?

Admiral MASON. It depended upon the appropriation, or rather the granting of permission, to extend ordinary repairs on the *Baltimore* and *San Francisco*.

Mr. PADGETT. For conversion to mine ships?

Admiral MASON. There is a law which does not allow us to go beyond a certain percentage of the original value of the vessel for repairs, and I think that permission is to be asked for and included in the bill.

Mr. BUTLER. A year ago we made an appropriation of \$100,000 for mines?

Admiral MASON. Yes, sir; and the contract is just being made.

Mr. BUTLER. We made that appropriation last February?

Admiral MASON. Yes, sir.

Mr. BUTLER. Almost a year ago?

Admiral MASON. Yes, sir.

Mr. BUTLER. And you are just making the contract?

Admiral MASON. Yes, sir.

Mr. BUTLER. How many mines a year can they build? We do not want to provide for these 2,500 mines if they can build them in six months.

Admiral MASON. The reason for the delay is that we had to hunt around for a mine.

Mr. LILLEY. Why did you not find out what kind of a mine you wanted before asking for the money?

Admiral MASON. We had a mine at that time—the naval-defense mine. The Geneva Conference has rendered certain changes in the type of mine necessary. We could have built the naval-defense mines, but concluded to search for a better one, and have found it. The delay has been justified.

Mr. PADGETT. I notice this paragraph says for a reserve stock of mines. Now, if the mines are purchased and placed in reserve, how long are they serviceable?

Admiral MASON. These mines will keep for years. They are loaded with gun cotton, which does not deteriorate very rapidly, and they

will be available until they become obsolete, ten or fifteen years from now—until some one makes a mine much better than this one.

Mr. PADGETT. I was getting at the deterioration of the powder.

Admiral MASON. This is merely gun cotton, which does not deteriorate rapidly.

Mr. ROBERTS. Is the language, "For the manufacture, purchase, repair, and maintenance of a reserve stock," essential to the appropriation? Could not that be stricken out and then consolidate this item and the \$100,000 item on page 24? It is not essential to your bureau?

Admiral MASON. No, sir; but usually the purpose for which it is intended is put in the bill. The two items could be consolidated, and would help our bookkeeping.

Mr. HOBSON. Do you know approximately the emergency capacity of this company for manufacturing mines?

Admiral MASON. I do not know. They have just received the order, and it is going to take them some little time to get started.

Mr. HOBSON. Could the manufacture of this mine or some useful mine be brought about on short notice?

Admiral MASON. We could start on our naval defense mine tomorrow and produce them in large quantities.

Mr. HOBSON. What is the size of the naval mine?

Admiral MASON. Thirty-two inches in diameter, and weighs complete with anchor about 900 pounds. It carries about 140 pounds of gun cotton.

Mr. HOBSON. What is the weight of the explosive in this mine?

Admiral MASON. To be accurate, 136 pounds of gun cotton.

Mr. THOMAS. What would be the extent of the damage of such a mine?

Admiral MASON. Placed under the bottom of a ship, it would knock a hole in her that would destroy that portion of the ship.

Mr. ROBERTS. How far away from the ship would it do damage?

Admiral MASON. Directly under, so the line of least resistance to air was through the ship, it would do damage 15 or 20 feet away. Of course, if at one side, so the line of least resistance to the surface did not pass through the ship, there would be very little damage.

The CHAIRMAN. The next item is, "Torpedoes and converting torpedo boats: For converting 20 torpedo boats from boats using 3.55 meters to boats using 5-meter torpedoes, and for the purchase and manufacture of torpedoes, \$1,150,000."

Admiral MASON. I will read to the committee a full statement on the present torpedo situation, which will include the next item also for reserve torpedoes and appliances. This latter appropriation is considered necessary for reserve, as well as to keep the new torpedo factory at Newport going.

Mr. DAWSON. How many torpedoes can you make with your present plant?

Admiral MASON. The plant at Newport?

Mr. DAWSON. Yes, sir.

Admiral MASON. Fifty a year.

Mr. DAWSON. How many with the increased plant?

Admiral MASON. One hundred a year, but we have not started yet. I think we have done better than usual because the building is under

cover, the machines are going in now, and we will start on the 1st of March.

Mr. ROBERTS. You will manufacture the 21-inch torpedoes?

Admiral MASON. No, sir; the 18-inch torpedoes.

Mr. HOBSON. Are you placing any orders abroad now for torpedoes?

Admiral MASON. No, sir; not now; they are manufacturing 50 of the 18-inch torpedoes, and deliveries have commenced.

Mr. LOUDENSLAGER. Why should there be two items for the torpedoes, one on page 27 and one on page 29?

Admiral MASON. Simply for purposes of explanation. The one on page 29 is simply for reserve torpedoes. This appropriation is so the torpedo station can continue working.

Mr. LOUDENSLAGER. Could not that item be put right in here? This is for the purchase and manufacture of torpedoes.

Admiral MASON. Yes, sir. If we can, I will put the two explanations together. It is only to make it perfectly clear.

Mr. LOUDENSLAGER. It would seem to me it would be clearer if you could give us the amount you want for torpedoes and the amount for converting the boats.

Admiral MASON. We want \$150,000 for the conversion of the boats and the rest for torpedoes. That would make each boat cost \$7,500, more or less.

Mr. ROBERTS. What torpedo is that?

Admiral MASON. The Whitehead 4-cylinder engine with compressed air, at a pressure of about 2,150.

Mr. ROBERTS. How does that compare in speed and efficiency with the torpedo we are having made here?

Admiral MASON. This last one is better than the Bliss company has been able to make. Their torpedo on paper is the same, but the actual tests are better.

Mr. ROBERTS. Can the Whitehead torpedo be discharged with the same outfit we have on our ships?

Admiral MASON. Yes, sir; there is no trouble about that. We do not use quite as much air pressure.

Mr. ROBERTS. When you convert the boats, you have to change the apparatus that discharges the torpedoes?

Admiral MASON. We have to change the tubes, the air compressor, and the piping. These torpedo boats were fitted for the old low-grade torpedo.

Mr. ROBERTS. They are discharged now from the surface, not under the water?

Admiral MASON. Above-water discharge.

Mr. ROBERTS. Have you any figures on the cost of changing one of these boats from using 3.55 meters to boats using 5-meter torpedoes?

Admiral MASON. About \$7,500 each, on the average.

Mr. ROBERTS. Do you contemplate taking out the air compressors and putting in new ones?

Admiral MASON. Yes, sir.

Mr. ROBERTS. It is quite an expensive matter?

Admiral MASON. Yes, sir.

Mr. ROBERTS. Do you think it will pay to convert the old torpedo boats that have, perhaps, a speed of only 25 knots, in view of the fact that they are developing boats of 35 knots an hour?

Admiral MASON. I certainly do. In comparison with their cost, the amount is not great. Even if you were going to appropriate for quite a number of new boats right now, I would change these also, because we are very deficient in torpedo boats and destroyers. We ought to have a ratio of at least one and a half or two destroyers to every battle ship, and we have not that by any means.

The CHAIRMAN. The 20 you speak of are the ones we authorized some years ago?

Admiral MASON. Twenty destroyers?

The CHAIRMAN. Twenty torpedo boats.

Admiral MASON. They were authorized by the naval appropriation bill of 1898.

The CHAIRMAN. They have a speed of about 25 knots?

Admiral MASON. Twenty to 25 knots.

The CHAIRMAN. How much is it going to cost to convert each boat?

Admiral MASON. It is estimated that \$150,000 is required for the 20 boats, and the rest of it goes for torpedoes.

The CHAIRMAN. The next item is, "Reserve ammunition: Toward the accumulation of a reserve supply ammunition, \$1,000,000."

Admiral MASON. The Bureau obtained from Congress at its last session \$4,000,000 for this purpose. At the beginning of the fiscal year 1907 it was computed that \$9,126,526 would be required to accumulate one reserve supply of ammunition; since then it has become necessary to consider the reserve supply for new ships, then only projected or building, which will cost \$677,200, making a total of \$9,803,726. Of this amount Congress appropriated \$2,000,000 in 1907 and \$4,000,000 in 1908; there remains from the original estimate \$3,803,726.

As stated last year, it seems imperative that there should be acquired a reserve supply sufficient to refill our main battery magazines at least twice. A modern battle ship at her maximum rate of fire will exhaust her ammunition supply in less than an hour. It is then most imperative that a more adequate supply of ammunition for at least the larger guns be accumulated without delay. Appropriations for this reserve were, considering the total amount required, very small until last year, and the fleet has long been incapable of more than a relatively short engagement because of the impossibility of resupplying it with ammunition. This stringency is also severely felt because of the backwardness of the projectile manufacturing facilities in the United States. It has, at times, taken from two to three years to procure satisfactory armor piercers. It is therefore considered most necessary that the amount (\$4,000,000) that remains of the entire amount originally estimated as the cost of one reserve be now appropriated for; that is, that the Bureau be allowed to obligate itself by entering into contracts for armor-piercing shell which will extend over into the following fiscal year to the one for which appropriations are now being made.

It is now considered that more than \$2,000,000 can be expended during the coming fiscal year.

It is requested that this entire amount asked for for the purchase of ammunition for any purpose be put under the heading "Ordnance and ordnance stores," instead of asking for a part under "Armor and armament" and a part as "Reserve ammunition." This is to prevent the future recurrence of a condition under which a considerable supply of ammunition is now carried under these titles with resulting confusion and risk of incurring deficiencies under the other appropriations.

The necessity for the change in titles for ammunition now on hand was urged last year. In addition to the facts then stated attention should be called to the fact that smokeless powder deteriorates with age, and finally becomes unstable. It is then more economical to use the least stable powder on hand, but often this can not be done because of the title under which it is carried. For instance, powder that has been bought under appropriation for "Reserve powder and shell" will in time have to be destroyed, or at least reworked, while newer powder is being expended for target practice.

It is earnestly desired that the appropriation be made under one title and that Congress give authority to transfer all ammunition now carried under other titles to the title "Ordnance and ordnance stores" without involving a charge against the current appropriation under that head.

I will say in explanation that now we have no right to make contracts, without authority from Congress, but if Congress permits us to obligate \$2,000,000 more, then this year's bill need carry only \$2,000,000 instead of \$4,000,000.

The CHAIRMAN. You mean that you would like an appropriation of \$2,000,000 with authority to contract for \$4,000,000?

Admiral MASON. Yes, sir.

Mr. ROBERTS. That would save \$2,000,000 on this bill?

Admiral MASON. Yes, sir.

Mr. LOUDENSLAGER. Did you not have some discussion about changing the language as to this reserve ammunition?

Admiral MASON. If they took out "reserve" and made it just "ammunition for the Navy," it would be a good deal better, because what has been heretofore purchased as "reserve" ammunition could also be considered as ammunition for the Navy. Then we could use it as we saw fit being responsible to Congress, of course, for a proper expenditure of it. Now, it is considered a reserve and it is mighty hard work to make the transfer from the reserve.

Mr. LOUDENSLAGER. I presume that you might be permitted after it was in there nine months to take it out, do it by replacing it, and keep it from deteriorating?

Admiral MASON. Yes, sir.

Mr. PADGETT. I believe we appropriated two years ago for some reserve ammunition?

Admiral MASON. Two million dollars in 1907, \$4,000,000 in 1908, and we are asking for \$4,000,000.

Mr. PADGETT. What is the status of the first \$2,000,000?

Admiral MASON. The appropriation has been obligated, but the deliveries have not yet been completed. Nearly all the powder and about one-third of the projectiles having been delivered. The latter are now being delivered rapidly.

Mr. PADGETT. How long will it be of use? We have been speaking about the deterioration, the chemical changes, and the melting down into a gummy state.

Admiral MASON. I think the ammunition (powder) purchased at that time will be of use for a number of years, but it is advisable, of course, to not keep it any longer than is necessary.

Mr. PADGETT. How long would it be advisable to keep it? What is your best opinion as to how long it should be kept in reserve, in storage?

Admiral MASON. Three years or perhaps more—the powder would probably remain good eight or ten years.

Mr. PADGETT. At the expiration of the three years, what disposition would you make of it?

Admiral MASON. We would try to use it up and replace it with new powder.

Mr. PADGETT. Use it for target practice?

Admiral MASON. Yes, sir.

Mr. PADGETT. Can it be used for that purpose?

Admiral MASON. If it happens to be of the right granulation, the right caliber at that time. What we buy or make in the future will be more apt to fit one of the calibers in use.

Mr. PADGETT. What is the percentage of possibilities of it happening to fit? In other words, after you have kept it three years and we want to use it then for target practice, what chance have we of using it in the possibilities of the changes that may take place?

Admiral MASON. I can not tell you that. The chances that we will not be able to use it in the future will be very slight.

Mr. LILLEY. Could we not keep using the old all the while and have a sort of revolving endless chain?

Admiral MASON. If you will strike out that word "reserve" we will look out for the rest of it.

Mr. LILLEY. Why was that put in?

Admiral MASON. To get the appropriation.

The CHAIRMAN. Suppose we did not build another ship, how much reserve do you think we ought to have?

Admiral MASON. One reserve at least.

The CHAIRMAN. What would that cost, what would a reserve supply cost, all told?

Admiral MASON. We have estimated that to complete one reserve of ammunition about \$9,126,000 is necessary—a complete reserve would cost fourteen or fifteen million dollars. We originally estimated \$9,126,000 as necessary to complete one reserve—\$6,000,000 has been appropriated for that purpose. By the addition of new vessels to the fleet we now need \$9,800,000 to complete one reserve, and therefore ask for \$4,000,000.

The CHAIRMAN. For all the ships?

Admiral MASON. Nine million eight hundred thousand dollars.

The CHAIRMAN. For this paragraph you are using about \$6,000,000 already granted, that will just give you one reserve?

Admiral MASON. Yes, sir; with what we are now asking for.

Mr. BUTLER. And this will fill the magazines the second time?

Admiral MASON. Yes, sir.

Mr. PADGETT. Under the existing law and the method of appropriation for the reserve, when it once gets into the reserve has the Depart-

ment the authority to take it out for target practice and spend money from other appropriations in its stead, or do you have to come to Congress for authority?

Admiral MASON. The Department has authority to transfer from other appropriations, without doubt. It is a question, of course, of bookkeeping, and without doubt, in time of emergency, I should say the Department has authority to take this reserve and use it. In time of peace, however, there are so many difficulties that such an arrangement is hardly practicable.

Mr. ROBERTS. That is the very question that Admiral Rogers made—that the Department had not the authority. I think there was a ruling that where powder was bought out of "Increase of the Navy" it could only be used for new ships?

Admiral MASON. Only for new ships, but you can take that powder, if you have something to replace it, some kind of powder to put in its place.

Mr. ROBERTS. He claimed not; that you could not use that powder until the original equal was exhausted, that otherwise you could not use it or replace it. That is the whole gist of his argument.

Admiral MASON. You can transfer it, I think, if you have the same amount. For instance, you can take a gun that is appropriated for under "Increase of the Navy" armor and armament, and if something happens that you do not want to use that particular gun you can take it away and put in another, equally as good. You can fix it all by doing what Mr. Loudenslager says—strike out the word "reserve."

THE COMMITTEE ON NAVAL AFFAIRS.

Monday, January 13, 1908.

The committee this day met, Hon. George E. Foss in the chair.

STATEMENT OF REAR-ADMIRAL N. E. MASON, CHIEF BUREAU OF ORDNANCE—Continued.

The CHAIRMAN. The first item is. "Reserve guns for ships of the Navy: Purchase and manufacture of reserve guns for ships of the Navy, \$453,000."

Admiral MASON. The Bureau obtained from Congress last year the sum of \$750,000 for this purpose, but in order to maintain the necessary number the sum asked for should be provided.

The Bureau's estimate contemplates obtaining four 8-inch guns, which will bring the supply of that caliber up to ten; and obtaining thirty 6-inch Mark VIII model 2 guns, which will bring the supply of that caliber up to thirty-five spare guns.

That ought to bring our reserve guns up so we will not ask for any more, provided in building the batteries of new ships we build one extra gun in four.

Mr. ROBERTS. That is a double set?

Admiral MASON. No, sir; for every four guns build a spare one and call it one of the spare guns of that ship. That would probably be the best way to hold the reserve.

The CHAIRMAN. Will you make them at the Washington yard?

Admiral MASON. Yes, sir; also at Bethlehem, at Midvale, and the overflow can probably be made at Watervliet Arsenal. They are now making four 12-inch guns for us.

The CHAIRMAN. Are the guns you are manufacturing at the Washington yard satisfactory?

Admiral MASON. They are excellent. We have no trouble with them except sometimes with the forging troubles—which you would find in any steel, such as sand splits, piping, etc.

The CHAIRMAN. Did you expend all of the \$750,000?

Admiral MASON. We will be able to obligate that without any trouble. Contracts will be made immediately as soon as the money is available. We will probably have them all ready to let before the 1st of July, when the appropriation will become available.

NOTE.—During the revision of this hearing it has been discovered that an error has been made in this particular item, and this request for an appropriation of \$453,000 for "Reserve guns for ships of the Navy" is withdrawn for this year, as in all probability it could not be expended.

The CHAIRMAN. You do not manufacture; all you really do is to assemble the guns?

Admiral MASON. That is all. We do not make the forgings, but it is really manufacturing, because the machining and fitting up is more expensive than the forgings themselves, notwithstanding the high price of the forgings.

Mr. MUDD. As to this matter of reserve guns for which you ask \$453,000 this year and for which you asked \$750,000 last year, is that a matter which is likely to continue year after year?

Admiral MASON. In all probability it will not. I think if the policy is adopted, that hereafter when we build a ship we will build her reserve guns at the same time and charge them as a part of the ship; that is, a ship has twelve 12-inch guns, and when we build her instead of building twelve we will build fifteen guns, building three extra guns, so that when anything happens to one of the guns we can make the change. I think hereafter the only charge will be for re-lining and overhauling these guns as the bores wear out.

Mr. LOUDENSLAGER. The only difference would be that the item would go out, but the money would still remain somewhere else, in the bill?

Admiral MASON. Yes, as far as the cost of the guns is concerned.

Mr. LOUDENSLAGER. I mean in the original construction of the three extra guns.

Admiral MASON. Oh, I see.

Mr. LOUDENSLAGER. The money would stay in the bill, but the item would go out?

Admiral MASON. We have to have the money until we get some guns which will not erode and need replacing temporarily for re-lining.

Mr. ROBERTS. Are the 12-inch guns interchangeable on the ships?

Admiral MASON. The latest type is interchangeable, but where we have the old short 12-inch gun it is a good deal of trouble and quite a little expense to take it out and put in the longer gun, because it means a different balance. The gun has to be in a certain position in the turret, because the turret is pretty small and you have to have room for the recoil. It can be done, but it is not advisable. The guns we are now speaking of are the latest type. We have asked in another part of these estimates for a few of these guns, which are of the shorter type. We want these three or four to use as replace guns for the shorter type, 40 caliber.

Mr. ROBERTS. If you carry out your policy of building the reserve guns when the new ship is authorized and when you are building the main battery, is there likely to be very much of a change in the character of the 12-inch gun so that the reserve gun would not be interchangeable?

Admiral MASON. No; they would be allotted to the ship designed for or one of her class until she was withdrawn from service.

Mr. ROBERTS. But an improvement in the gun might make them obsolete so far as interchangeability with all the ships is concerned?

Admiral MASON. Oh, yes; but all the guns of the ship would also become obsolete.

Mr. LOUDENSLAGER. On pages 25 and 26 of the bill you are asking for some money for replacing guns.

Admiral MASON. Yes, sir. If I remember, one item was to replace the 3-pounder and 6-pounder guns. That is because the torpedo-de-

fense guns are not now heavy enough. This appropriation is to replace the guns on the armored cruisers. These are the guns that are not hooped to the muzzle and they are to be replaced, hooped to the muzzle, and then go into the reserve.

The CHAIRMAN. The next item is, "Reserve guns for auxiliary cruisers: For repairing, modernizing, and fitting with telescopic sights a number of 4-inch and 5-inch .40-caliber guns and mounts, not now needed for arming vessels in commission, and toward building new guns and mounts as may be necessary to utilize all guns not now available as complete units, \$500,000."

Admiral MASON. We have a number of guns for auxiliary cruisers, and, in fact, whenever guns become obsolete for regular men-of-war we reserve them for the auxiliary cruisers.

This is a new item for next year, although the Bureau has obtained appropriations under this heading for a number of years past.

There is on hand a considerable number of guns and mounts of more or less obsolete types which are still perfectly serviceable, but not efficient owing to their not being modernized; there are also guns without mounts and mounts without guns; it is desirable, in order that all ordnance material may be available for use in time of war, that every gun be provided with a mount and that there be no gun mounts without guns; it is further desirable that all these guns and mounts be modernized and fitted with the best sights suitable to their types. This work is of such magnitude that it can not be done without a special appropriation for the purpose.

It is not proposed to expend any part of this appropriation on guns and mounts of larger caliber than 6-inch nor for new guns and mounts except as may be necessary to complete units now incomplete.

Mr. ROBERTS. How many serviceable guns, modernized, have we available for that purpose now?

Admiral MASON. Twenty-five 3-pounders, 105 6-pounders, 75 3-inch, 141 4-inch, 90 5-inch, and 17 6-inch—453 in all. The mounts, however, are not modernized.

Mr. ROBERTS. What are the calibers?

Admiral MASON. They run from 3-pounders up.

Mr. ROBERTS. How many additional of the same caliber would this appropriation provide?

Admiral MASON. I should say not more than six or eight new guns and new mounts. We have some guns and some different mounts. The idea is to—

Mr. ROBERTS (interrupting). How many guns with mounts and how many guns without mounts and how many mounts without guns have you on hand now that can be fitted up and made available?

Admiral MASON. This question is one that will require a complete overhauling of all the stock at each navy-yard and station. Ships are constantly coming in and leaving guns and mounts and receiving new ones. These guns and mounts turned in are then sent to the Naval Gun Factory to be put in serviceable condition for issue for auxiliary cruisers and for other purposes. I therefore can not definitely state now the number of guns and mounts on hand for this purpose. In all probability there will be no new guns made under this appropriation, but some new mounts, and practically all the mounts will have to be modernized.

Mr. ROBERTS. Have you any considerable number or not many?

Admiral MASON. Not many.

Mr. ROBERTS. But it is desirable that they be modernized and placed in condition for use?

Admiral MASON. Yes.

Mr. LOUDENSLAGER. The next item is: "Reserve torpedoes and appliances," \$500,000.

Admiral MASON. Of course the committee should really consider this appropriation in connection with the whole torpedo situation. What we need with this fund is to keep the torpedo factory going. The torpedo factory will be an excellent asset for the Government, because by it we will be able to keep the price of torpedoes down. We will know how much it costs us to build the torpedoes, and in that way we will be able to tell what we should pay the contractors.

This item is for the manufacture of torpedoes at the torpedo factory and the purchase of spare parts of the torpedo outfit.

The torpedoes and spare parts will be kept in store ready for issue in case of emergency and will constitute a war reserve of torpedoes and torpedo gear. Such a reserve is inadequate, but the capacity of the factory is not sufficient to spend more than \$500,000 in one year. This is necessary to keep the new torpedo factory going and is considered as absolutely necessary.

Mr. THOMAS. How many torpedoes are you using for actual target practice?

Admiral MASON. For the annual target practice last year about 60 torpedoes were used. If all the ships fitted for using 18-inch torpedoes could have been supplied 120 torpedoes would have been used.

Vessels in commission and in reserve exercising with torpedoes other than regular target practice used about 60 more. At present the ships in commission have not their full complements, neither have the ships in reserve ready for commissioning. We do the best we can with the limited number of serviceable torpedoes by shifting from the vessels out of commission to vessels in commission. This is not a practice which conduces to either efficiency or economy.

Mr. ROBERTS. What do the losses average in practice?

Admiral MASON. Up to last year about 20 per cent of the torpedoes were lost a year, but last year this per cent, due to greater familiarity with the weapon, has been reduced to less than 10. This does not mean that 1 torpedo was lost for every 10 fired, but 1 for every 10 in service. Each torpedo was probably fired 20 times, so that the ratio of the number of torpedoes lost to the number of torpedo runs was very small, less than 1 per cent.

Mr. THOMAS. Do you not have a dummy?

Admiral MASON. The explosive of a torpedo is contained in the war head. For target practice the war head is not used, an exercise dummy head being substituted.

Mr. THOMAS. You can not do that without having it blow up?

Admiral MASON. Yes, sir; and recover it, but it is a delicate mechanism and if not adjusted properly it goes to the bottom.

Mr. PADGETT. In this paragraph "Reserve torpedoes and appliances," \$500,000, it says "purchase or manufacture." What is contemplated, the purchase; or is any of the amount to be used for manufacturing?

Admiral MASON. We have to purchase the material and manufacture the torpedoes. We want to use it all at the torpedo station.

Mr. PADGETT. This is not for purchase abroad?

Admiral MASON. No, sir; not with this particular appropriation. The word "or" can be changed to "and;" it should be so, in fact.

The CHAIRMAN. The next item is "Torpedo Station, Newport, R. I.," and you are asking for \$75,000, an increase of \$5,000 over the last year's appropriation. What is the necessity for that increase.

Admiral MASON. "For labor, material, freight and express charges, \$45,780; general care of and repairs to grounds, buildings, and wharves, \$20,455; boats, instruction, instruments, tools, furniture, experiments, and general torpedo outfits, \$8,765; total, \$75,000."

This appropriation has been itemized as directed by the Department in its circular letter of September 2, 1906.

Mr. LOUDENSLAGER. How would that compare with the year before?

Admiral MASON. It is increased \$10,000.

Mr. LOUDENSLAGER. Which items have been increased over the year before?

Admiral MASON. All of them.

It is pointed out that the estimated amount set opposite each item as a possible expenditure is only approximate and liable to be increased or diminished by unforeseen contingencies, and also that the aggregate amount appropriated for several purposes may be in fact differently distributed among them.

This appropriation has been for a number of years only \$65,000, but on account of the establishment of the torpedo factory it is found necessary to ask for \$10,000 additional, making the appropriation \$75,000. This is accounted for as follows:

Increased cost of labor.....	\$3, 000
Maintenance of new buildings—torpedo factory, paint shop, tin shop...	1, 600
Extra water.....	500
Machinery (new coppersmith and tin shop).....	3, 500
Increased allowance for grain for extra horse.....	100
Increased freight, telephone and telegraph charges.....	100
Increased cost of instruction to seamen, gunners, and maintenance of quarters	600
	<hr/> 10, 000

The CHAIRMAN. Paymaster-General Rogers has suggested that all the items relating to freight and expressage should be paid for by his Bureau.

Admiral MASON. You can leave freight and express charges out. As a matter of fact, we do not pay for the freight and we have not been paying it for some time, except at the torpedo station.

The CHAIRMAN. How about the express charges?

Admiral MASON. We do pay them.

The CHAIRMAN. Do you know how much that amounts to at Newport?

Admiral MASON. No, sir; I have not that information.

Mr. PADGETT. Who pays for the freight in your Bureau?

Admiral MASON. The Bureau of Supplies and Accounts pays for all freight in the Navy, but express charges, being urgent charges and charges that can not be estimated for ahead, are paid by each Bureau under their contingent or miscellaneous appropriation. You give us

a small contingent appropriation. The express charges are where we have anything that has to go in a hurry.

Mr. LOUDENSLAGER. Then it does not come out of this item at all?

Admiral MASON. No, sir.

Mr. LOUDENSLAGER. And it is not proper to have it here?

Admiral MASON. It could be stricken out. At the torpedo station the express charges are paid out of that appropriation, and freight is also.

The CHAIRMAN. The next item is "Arming and equipping naval militia," \$100,000, instead of \$50,000.

Admiral MASON. This is an increase over last year's appropriation.

This fund, although handled by the Bureau of Ordnance as a matter of convenience, is allotted and controlled by the Assistant Secretary of the Navy, and the following is a statement of the necessities for the increase, furnished by his office:

"In the estimate for 'Arming and equipping Naval Militia' the item 'Repairs to ships' has been omitted and 'Medical outfits' added. The Bureaus of Construction and Repair, Equipment, and Steam Engineering have been directed to include in the amounts of their estimates for repairs to ships \$100,000, \$35,000, and \$65,000, respectively, for necessary work during the year on vessels loaned to various States for use by the Naval Militia. It is believed that with the repair items so borne \$100,000 ought to be sufficient for the several purposes named in the amended estimate. One hundred thousand dollars is about the same proportionate sum as is annually appropriated for maintaining the land militia forces of the several States, the amount appropriated for land militia during the current year being \$2,000,000, a per capita rate of \$19. The same per capita rate for the Naval Militia would give a total of \$109,383—\$9,383 more than the amount requested.

"Every cent of this amount is needed. There are now 25 ships in commission with Naval Militia officers and crews, the *Newark*, *Isla de Luzon*, *Nashville*, *Sandoval*, *Don Juan de Austria*, *Alvarado*, *Machias*, *Vixen*, and *Gloucester* having recently been added to the 'fleet.' Each additional vessel, while greatly increasing the efficiency of the organization to which attached, adds materially to the expenses of the same. Some of the States contribute more or less liberally to the maintenance of Naval Militia; but there are many items of expense which legitimately pertain to the Federal Government, and the appropriation heretofore made is insufficient for the growing demands of the Naval Militia's increasing standard of efficiency. In the past, owing to exhaustion of States' allotments of the Federal appropriation, it has been impossible, in some cases, to supply organizations with absolutely necessary articles, such as ammunition, fuel for ships, etc.

"The Naval Militia is now in a transition state, and the Department is earnestly endeavoring to meet them halfway by affording them all reasonable facilities to acquaint themselves as thoroughly as possible with the duties of their profession—to afford them opportunities equal to those of the land forces. If this be done (and if the amended estimates are favorably acted upon) the Naval Militia of the nineteen States (including the District of Columbia) represented may be confidently counted on immediately to respond to the added impetus and prosecute their work so faithfully and intelligently as

to render their arm of the national defense a genuine credit in time of peace and a readily useful auxiliary in the event of war."

Mr. PADGETT. We appropriated last year for that item \$60,000 and you are asking \$100,000 this year?

Admiral MASON. Yes, sir.

Mr. PADGETT. What was asked last year?

Admiral MASON. I think \$100,000 also.

Mr. ROBERTS. They told us that they could get along with \$60,000 last year. Now they say they absolutely need \$100,000.

Mr. HOBSON. Could any of the brown powder or any of the ordnance material that has deteriorated or become obsolete and unfit for use in the regular Navy be donated with advantage to the militia?

Admiral MASON. The brown powder could be used, but I do not think it would be of much use to them because they would be trained with something they would not use just as soon as we got into war.

Mr. HOBSON. Do you think that training with the constant use of powder instead of simply the drill would be of advantage to the raw men?

Admiral MASON. I do not think so. The way we work now the people should be trained with the weapons we are going to use in active service.

Mr. HOBSON. Are the ships they use armed with the new equipment?

Admiral MASON. As a general thing, they are armed with the smaller calibers, 3 and 6 pounder guns, for which we do not use brown powder. We stopped using brown powder in the smaller caliber guns long ago and went to black powder. The Naval Militia are still using black powder, but the brown powder would not be of any use in the guns below 4 inches in caliber, and I do not think any Naval Militia organization has 4-inch guns, except, perhaps, one. I don't think it would be advisable to give them that powder.

Mr. HOBSON. Do you know of any use to which it could be put?

Admiral MASON. None at all, except to try to save the nitrate of soda in it.

Mr. HOBSON. Would it injure one of the smaller caliber guns or even a gun designed for smokeless powder if you used the brown powder?

Admiral MASON. Not a bit. The only trouble is that it would cause us a great deal more trouble and expense to fix the charges for them, and besides trouble would be encountered in getting proper velocities, necessitating changes in marking of sights, etc. Brown powder dries out and is erratic in its ballistic behavior. We would have to have one group at the proving grounds fixing charges every time we gave them a new outfit of ammunition.

The CHAIRMAN. The next item is "Repairs, Bureau of Ordnance, \$50,000." That is an increase of \$20,000?

Admiral MASON. The Bureau has increased this sum from \$30,000, which was appropriated last year, to \$50,000.

For a number of years the Bureau received only \$15,000 per annum under this head, but in 1892 it was increased to \$30,000, and that sum has been appropriated each year since. The Bureau's last estimates asked for \$50,000, but the Department reduced it to \$30,000.

Owing to the increase in public works under this Bureau, it is believed to be necessary to have a sufficient fund at its disposal for immediate repairs to buildings, etc., instead of waiting for special appropriations by Congress. On several occasions buildings and other public works already damaged have been neglected for a long time until money was appropriated, the delay increasing the cost owing to deterioration. This is especially urgent in the case of magazine buildings injured by explosions.

As a matter of fact we have been struggling along on \$30,000 for a long time, and the increase in the public buildings we have under Ordnance requires a larger sum for repairs and maintenance.

Mr. PADGETT. If you get \$50,000 this year, would it require \$50,000 again next year?

Admiral MASON. I should say that it would probably require a continuous appropriation.

Mr. PADGETT. Of \$50,000?

Admiral MASON. Yes, sir. We have had a continuous appropriation of \$30,000, have been struggling along, and have had to ask for special funds for repairs and maintenance.

Mr. PADGETT. In other words, this contemplates a permanent increase?

Admiral MASON. Yes, sir; I think it should be increased permanently.

The CHAIRMAN. The next item is "Contingent, Bureau of Ordnance," \$20,000. That is the same amount as the appropriation last year?

Admiral MASON. Yes, sir; we cut it down from the year before, somewhat. We will come out square this year, I think. It is something you can not estimate for, because it is for contingencies.

Mr. DAWSON. Do you need the words "Cartage and express charges" in this paragraph?

Admiral MASON. Yes, sir. We pay the express charges, but we do not pay the freight. For several years the Bureau of Supplies and Accounts has been paying all the freight, but they do not make an estimate for express charges. It is contingent and can not be anticipated. As a matter of fact, I am of the opinion that it would be better administration if all freight and express charges, so far as this Bureau is concerned, were paid for by the Bureau of Supplies and Accounts, provided the custody of this appropriation will in no way hamper the Bureau in directing shipments.

The CHAIRMAN. The next item is "Civil establishment, Bureau of Ordnance," on page 31 of the bill.

Mr. ROBERTS. I notice your civil establishment calls for one writer at Portsmouth, and in looking over the detailed estimates called for by law last year, as to the number of clerks in these different bureaus and at the yards, I do not see any mention of Portsmouth having anything paid out of a lump sum. Does it mean that you have only one civil employee in your Bureau at Portsmouth?

Admiral MASON. Yes, sir; I think that is all. Portsmouth, as far as we are concerned, is at the present time at very low ebb concerning work. We have one writer at Portsmouth. I have a statement which covers fully the civil establishment.

The Bureau has submitted the present estimate for civil establishment by permission of the Navy Department, contained in letter dated September 25, 1907.

The increases asked for are believed to be proper to put the positions on the same footing with positions of a similar character at the different navy-yards, and the Bureau in making its recommendations examined the list of positions at the various navy-yards and stations and has only asked to have the ordnance clerks placed on the same footing as similar clerks in other Departments.

In the case of the new positions asked for at the naval proving ground, Indian Head, Md., the Bureau will point out that the work of this station has been gradually increasing with the increase of the Navy from year to year to such an extent as to be beyond the capacity of the present force, and the additional chemists asked for are deemed to be urgently necessary to carry on properly the tests of powder and its component parts, which are constantly sent to the station. The additional clerk asked for at \$1,200 per annum is deemed to be very necessary, as it has been almost impossible to hold clerks at this place, there being no suitable accommodations, and clerks who are appointed at a small per diem salary leave frequently.

The words additional chemists and additional clerk which I have used above are really in error as this represents, instead of additional employees, the changing or transferring of employees now paid for out of lump appropriations to the civil-service establishment, with a very slight increase in pay. This simply changes these chemists and this clerk's status and places them under the civil establishment.

In the case of the increased estimate for the position of chief draftsman at the naval torpedo station, it seems only necessary to state that the salary is now the same as it was a number of years ago when the station was comparatively small and undeveloped. The work has increased greatly in quantity and importance during recent years and will be still further increased by the establishment of the torpedo factory at that place. The character of the work is such as to require the services of a competent expert and in the opinion of the Bureau fully justifies the increase asked for.

Mr. ROBERTS. I notice you have ten civil employees in your Bureau in Boston in addition to the one we provide for here. Those ten are paid out of the lump appropriations, nine of them out of "Ordnance and ordnance stores" and one out of "Increase in the Navy, arms and armament," and for next year you estimate for twelve to be paid out of similar appropriations. Without any knowledge on the part of Congress you undoubtedly would get those extra civil employees out of the lump sums?

Admiral MASON. If it becomes necessary, we will.

Mr. ROBERTS. You think they will be necessary?

Admiral MASON. The status of the Boston yard has been changed very materially within the last two or three years. They have assigned to that yard for permanent repairs a certain proportion of the battle ships of the fleet and it increases the ordnance work.

Mr. ROBERTS. I am not finding any fault with the necessity; I merely want to get at the policy which has been carried on in your department for many years. Do you think it is a good system?

You have a civil establishment provided for in this appropriation bill and so far as the members of this committee or any Member of Congress knows there is only one clerk in the Ordnance Bureau in Boston, and yet, as a matter of fact, we find that there are eleven there.

Admiral MASON. I think it really would be better if they all could be on the civil establishment, because then they would be appropriated for regularly.

Mr. ROBERTS. That is it exactly.

Admiral MASON. Where they are charged to a lump-sum appropriation, just as soon as that appropriation gets low the clerk has to go and we lose the services of a skilled man, and then when we go back to work again we have to take in a new man and train him.

Mr. PADGETT. I notice that you seek to promote the chief clerk in the navy-yard in Washington from \$1,600 to \$2,000?

Admiral MASON. At the Gun Factory we have at least 4,000 men, and the chief clerk of an establishment like that ought to get at least \$2,000. He is a young man who started in there as a boy and has worked his way up and is almost invaluable. Of course we can not expect him to do the work he does if we do not give him the pay that belongs to the position and to the work. He is not the same and does not have the same duties as the clerk in the ordnance office at New York or Boston or League Island.

The CHAIRMAN. What about the "One clerk (in lieu of special laborer) stenographer" at Puget Sound?

Admiral MASON. There is no clerk there at all, nothing but a special laborer.

Mr. LOUDENSLAGER. You have a clerk there now?

Admiral MASON. Yes, sir; paid out of "ordnance stores." We want to get the permanent people on the civil establishment.

The CHAIRMAN. I suppose they would rather be on the permanent civil establishment than to be in this uncertain state?

Admiral MASON. Yes, sir.

The CHAIRMAN. Do you ever decrease your force?

Admiral MASON. Whenever we have to. As soon as the money gets short we do. We have had to practically close up the shops on the east coast here since the departure of the fleet.

The CHAIRMAN. On page 124 of the bill there is the item, "Naval magazine, St. Juliens Creek, Norfolk, Virginia: For fencing newly acquired land and moving old fence, \$4,450; for installing apparatus for lighting grounds, \$8,000; in all, \$12,450." What is the necessity of that appropriation?

Admiral MASON. This fencing is necessary to inclose new tract, and should be of corrugated galvanized iron with galvanized-iron posts set in concrete foundations as a protection against fire. The surrounding land is covered with pine trees and pine shrub, all of highly inflammable nature. This, with the usual fall and spring burnings, becomes a positive menace to the magazine grounds.

Mr. LOUDENSLAGER. How long is this fence to be?

Admiral MASON. Of the amount asked for, \$2,250 will be used for the purchase of 750 feet of new fencing, and \$2,200 will be used for removing and utilizing 2,200 feet of the old fence, the whole to inclose a new tract of land.

Mr. LOUD. Is this land going into active use now?

Admiral MASON. Yes, sir.

Mr. LOUD. For what purpose?

Admiral MASON. We bought it so as to get control over it.

Mr. LOUD. That is the point I am getting at. Are you going to put it into active use?

Admiral MASON. Yes, sir.

Mr. LOUD. What use?

Admiral MASON. As the outskirts of the magazine, and we will build out in that direction as soon as necessary. There are millions of pounds of powder stored at this magazine and we were compelled to buy this land really to prevent fires and danger to the property. Now we want to put the fence on the outside.

The CHAIRMAN. This is the new addition?

Admiral MASON. Yes, sir.

The CHAIRMAN. Have you had any previous appropriation for this fence?

Admiral MASON. No, sir; this is the first estimate.

The CHAIRMAN. How many acres will this fence inclose?

Admiral MASON. The fence, when completed, would inclose about 22½ acres of land.

For installing apparatus for lighting grounds, barracks, officers' quarters, and offices, \$8,000. The power to be obtained from the central power plant at the navy-yard, 3½ miles distant. The grounds should be lighted with about 12 incandescent lamps, 32 candlepower, for the proper protection against trespassers or accidents. Seven and a half horsepower motors will be installed in order that all re-forming of cartridge cases and similar repair work may be done on the premises. All re-forming tools now in the ordinance shop at the yard may be transferred to the magazine.

For the past fiscal year the following extra expense has been caused by having the re-forming plant at the yard: Three hundred and seventy dollars for labor in handling cartridge cases to and from the yard. This is in addition to the annoyance of delays and difficulties of always securing from the yard promptly the current necessary to run the re-forming machinery.

The naval magazine at St. Juliens Creek, Norfolk, is a very important magazine and the Bureau is of the opinion that everything should be done that is possible to put it in the most efficient condition.

The CHAIRMAN. The next item is, "Naval proving ground, Indian Head, Maryland: Providing and laying conduits for chronograph, bells, telephones, and power lines in the valley, \$3,740."

Admiral MASON. At present these wires are run through a sewer pipe and much difficulty is experienced in preventing grounding and flooding. Regular conduits of sufficient flexibility are required.

Mr. THOMAS. What is a chronograph?

Admiral MASON. An instrument for measuring the velocity of a projectile.

The CHAIRMAN. The next item is, "Raising roof of powder-factory storehouse, etc., \$3,440."

Admiral MASON. The roof is to be raised in order to provide additional store room.

Mr. LOUDENSLAGER. And it will take \$3,440 to raise that roof?

Admiral MASON. Yes, sir. I do not know how large the storehouse is. I have taken the estimate from the commanding officer of the

proving ground. I have since been informed by this officer that it means the addition of a half story to make a complete second floor to a building 100 feet by 75, built of brick.

The CHAIRMAN. The next item is "concrete retaining wall in the valley, \$2,500."

Admiral MASON. This is to replace piling and struts now used to prevent the caving of the hill back of the machine shop and boiler room. This is constantly being washed down by the rain, and the dirt dug out and hauled away.

The CHAIRMAN. The next item is, "Extending machine shop in the valley."

Admiral MASON. This provides for doubling the present floor space. We have recently installed some additional machinery transferred from the Washington Navy-Yard useful for our rough work, but no longer useful at the Washington Navy-Yard. The shop is now too crowded for efficient work. That is necessary.

The CHAIRMAN. The next item is, "Tide bridge for loading barges."

Admiral MASON. The device submitted will permit the loading of the barges at any stage of the tide. This will obviate the detention of heavy guns and railroad cars, the latter being a fruitful cause of demurrage charges, while to prevent the former, risks are often taken which should be avoided. That is necessary.

The CHAIRMAN. The next item is, "Increasing potential output of powder plant."

Admiral MASON. The Bureau has estimated for \$300,000 under this heading in conformity with the report of the Joint Army and Navy Board on smokeless powder, submitted under date of September 18, 1907, and quotes as follows:

The Board has carefully considered the above question and recommends that, so far as the naval powder factory at Indian Head is concerned, there should be requested from Congress an appropriation of \$300,000 to be expended in enlarging such parts of the present plant as will contribute much more advantageously to the increase of output.

The Board understands from the commanding officer of the proving ground that the expenditure of the above sum will more than double the present output of the factory.

The Board desires to place upon record in this connection its conviction that the increase of facilities above referred to should not be utilized by the Government with a view of shutting out private manufacturers, the Board being unanimously of the opinion that the best interests of the Government are served by encouraging private manufacturers to keep up their plants and retain their trained personnel of experts and workmen and to continue their experiments in the field of powder manufacture, not only with a view of preserving the present type of service powder, but in the hope of developing new types.

As the Bureau is aware, the private manufacturers at present engaged in making powder for the Government maintain an experimental department in which they are and have been for some time past experimenting along lines, which give promise of resources of great military value.

Mr. THOMAS. About how much money has been expended there up to date?

Admiral MASON. I suppose for the powder factory alone about \$800,000. It is quite a factory now. This \$300,000 is going to a little more than double the output. Our theory is that it is one of the best reserves. That is, that we have a plant there. We need not work it to its full capacity, except when the emergency arises. Of course we can not ask the powder manufacturers to increase their

plants and then let them lie idle. If we ask them to increase the plants we have to give them work, but we can increase our plant at comparatively small expense and then not work it to its full capacity, if it is considered advisable, and give the outside companies a certain amount of work to keep them going.

The CHAIRMAN. What will you do with the \$300,000?

Admiral MASON. We will add to the nitrating establishment, we will add to the press house, we will add to the ether storage capacity, and we will add to the power plant, the electrical power plant which furnishes the power for working the machines, and in fact double the capacity of the plant by increasing where necessary.

The CHAIRMAN. Can you put into the hearing a little statement showing what you will do with the money, how much will go to each item?

Admiral MASON. Yes, sir. The following is an approximate itemized estimate of how this sum will be expended:

Additional power with buildings for plant, \$75,000; nitric acid plant (additional unit), \$30,000; sulphuric acid plant (additional unit), \$60,000; cotton storehouse (additional house), \$5,000; nitrating house and plant (additional unit), \$15,000; pulping and poaching house (rearranging and adding to present building), \$30,000; ether plant (new unit), \$5,000; dehydrating plant (addition to present building), \$6,000; mixing house (additional unit), \$18,000; press house (general increase of building), \$4,000; solvent recovery (doubling present facilities, increasing plant and house), \$15,000; one hydraulic press, \$2,000; packing house (doubling), \$7,000; new well, \$12,000; wiring (copper), (power leads, electric). \$15,000; total, \$299,000.

Mr. PADGETT. Speaking on the subject of powder, you stated a while ago with reference to brown powder that it was practically useless; that the only use that could be made of it would be to bleach it and get the nitrate out of it?

Admiral MASON. Yes, sir.

Mr. PADGETT. The powder that is now being manufactured and put in reserve, what is the possibility of it getting into that condition in time?

Admiral MASON. Not in that condition. It may eventually become unserviceable; we will then have to work it over. Brown powder and smokeless powder are not the same articles by any means.

Mr. LOUDENSLAGER. I think you stated the other day that the present powder would retain its strength and efficiency for six or eight years?

Admiral MASON. Yes, sir. After that it deteriorates in time, but it can be reworked at a cost of one-fourth of its original value and then it is as good as new. It is the same as rewashing it, renovating it, but the brown powder of course is a different article. It is a mechanical mixture, while the smokeless powder is a chemical composition. The brown powder is the same as the black powder except a different kind of charcoal is used. The charcoal is not burned so much.

Mr. ROBERTS. Is it necessary to keep in the bill the language we find bracketed, for instance, "[one plan naval proving ground numbered 322, Bureau numbered 20,907 to 20,913]?"

Admiral MASON. It is not material at all. I think there is either a law or else a custom requiring that we should submit plans for information.

Mr. ROBERTS. There is no necessity for referring to the plans in the appropriation bill?

Admiral MASON. Oh, no.

Mr. HOBSON. Is it likely that the capacity for the output of powder may run far ahead of the capacity for the manufacture of projectiles in emergency?

Admiral MASON. Not if we could get some of the big firms at work making projectiles. There are plenty of people who can do it if they want to, if they get the money for it, but I do not think any of them care particularly to go into the manufacture of projectiles at the price set by the one firm who makes the best projectiles. They do not see anything in it financially and of course they are not going to do it.

Mr. HOBSON. Do you see any special advantage in having an adequate powder supply available with an inadequate supply of projectiles?

Admiral MASON. No advantage, but still you would be better off than if you kept the powder down to the projectiles. Of course, you can make projectiles of inferior quality if necessary, and do it very quickly, whereas the smokeless powder takes a long time.

Mr. DAWSON. Is it the drying process which requires the time?

Admiral MASON. Yes, sir.

Mr. DAWSON. Is there not some new drying process being tested which promises to cut that time in two?

Admiral MASON. We have been making experiments for a number of years and we have one or two processes under trial now.

Mr. DAWSON. What is the prospect of success of this drying process?

Admiral MASON. We have tried it but without much success.

Mr. MUDD. Were these plans prepared in virtue of any special authority?

Admiral MASON. They were prepared by direction of the Bureau, by the commanding officer of the proving ground.

Mr. MUDD. He prepared these plans without any special authority?

Admiral MASON. The moment the report came in that it was necessary he was ordered to prepare the plans.

Mr. DAWSON. Have you adequate appropriation to continue the experiments with regard to powder or to make new ones?

Admiral MASON. That is what we want the \$200,000 experimental appropriation for. We have been making the experiments along with the current work at the proving ground, charging the expense up to the working appropriation "Ordnance and ordnance stores," and sometimes to other appropriations where we could do it properly.

Mr. DAWSON. It seems to me that is a subject of extreme importance.

Admiral MASON. Yes, it is absolutely necessary, and that is what we ask the \$200,000 for. We have to skimp in order to get money to make any experiments.

Mr. LOUDENSLAGER. Do they not make experiments at Newport?

Admiral MASON. Those are the torpedo experiments.

Mr. LOUDENSLAGER. The other experiments are all made at the Naval Proving Ground?

Admiral MASON. Yes, sir.

The CHAIRMAN. The next item is "Naval Magazine, Fort Mifflin, Pa., three filling houses, \$5,100?"

Admiral MASON. These buildings are used for loading and unloading projectiles and putting up and breaking down ammunition. These buildings are to be of corrugated steel, wood sheathed inside, tin roof, and concrete foundations. They are urgently needed in order that ammunition may be prepared in buildings specially adapted for the purposes. The Bureau has been compelled to use temporary structures at different times, owing to the lack of proper facilities.

"Installation of watchman's clock system, \$2,000." The Bureau has had installed at all of the magazines under its cognizance, with the exception of Fort Mifflin, the electric watchman's clock system, as it has been found to be conducive to the protection of the Government property, insuring the strict attention of the watchmen to their duties.

The CHAIRMAN. How many men are employed there?

Admiral MASON. Three magazine attendants, who do the watchman's business. One is on duty all the time. Then, we have a marine guard of 15 men, and then during the day there are workmen employed from 30 to 100, according to the amount of work.

The CHAIRMAN. You have 15 marines there. How are they housed now?

Admiral MASON. In old quarters which were either found on the grounds when we went there or were in the first place used as a magazine attendant's house. It is very crowded and insanitary. The marine guard at this magazine consists of 16 enlisted men with a sergeant in charge, and the quarters they are now occupying are old, obsolete, and insanitary, and not any longer suitable for quarters. The Bureau is of the opinion that a modern structure should be allowed for the proper accommodation of the marine guard.

The CHAIRMAN. Do you think we ought to put up a \$15,000 building to house them?

Admiral MASON. Yes, sir. They are men who are absolutely necessary. In time of war we probably would want to double the guard. There is much property at stake and we watch it with only three men now. These men are there as watchmen and guards and also for fire protection.

The CHAIRMAN. Can you tell us the value of the plant there, in round numbers?

Admiral MASON. I should say about \$350,000.

The CHAIRMAN. Will you also please put in the hearing the same information in regard to all the naval magazines?

Admiral MASON. Yes, sir; it is as follows:

New England coast magazine, total appropriation to date.....	\$400, 000. 00	
No buildings erected yet.		
Iona Island magazine, total appropriation to date.....	791, 650. 00	
Dover magazine:		
Inventory July 1, 1899, land and permanent im-		
provements	\$13, 000. 00	
Inventory July 1, 1899, buildings.....	65, 928. 00	
Appropriations July 1, 1899, to date.....	324, 350. 00	403, 278. 00

St. Julien's Creek magazine:

Inventory July 1, 1899, land and permanent im-		
provements	\$43,800.00	
Inventory July 1, 1899, buildings	64,200.00	
Appropriations July 1, 1899, to date	233,600.00	\$341,600.00

Fort Mifflin magazine:

Inventory July 1, 1899, land and permanent im-		
provements	39,313.00	
Inventory July 1, 1899, buildings	103,400.00	
Appropriations July 1, 1899, to date	180,250.00	322,963.00

Mare Island magazine:

Inventory July 1, 1899, land and permanent im-		
provements	68,602.00	
Inventory July 1, 1899, buildings	169,950.00	
Appropriations July 1, 1899, to date	143,500.00	382,061.00

Puget Sound magazine, total appropriations to date 130,000.00

Total 2,771,552.00

The CHAIRMAN. The next item is, "Naval magazine, Mare Island, Cal. One storehouse for nonexplosives, \$12,000?"

Admiral MASON. This building is necessary to house the nonexplosives now stowed out in the weather. At Mare Island is kept the general supply not only for that immediate section of the Pacific coast, but for Puget Sound and the China station, and it will be some little time before the Puget Sound Magazine is equipped and ready for work.

As to the two filling houses the same reasons exist as for the ones at Fort Mifflin. The estimates for the Mare Island Navy-Yard were three filling houses, \$9,000, but the Bureau considered that if two were provided it would meet conditions now existing and provide suitable places for the manufacture of ammunition that will probably be required of the magazines for the present. They will be made light, so that if there is an explosion the roof will blow off and not scatter the building all over the place.

Mr. LOUDENSLAGER. At Fort Mifflin for three filling houses you estimate \$5,100, while at Mare Island you ask \$6,000 for two?

Admiral MASON. They are probably of a different design and they are different sizes, too, and the increased cost of all building on the West coast since the San Francisco disaster will also account in a measure for the difference in cost; but I think we might cut it down to \$5,000, and the Navy-Yard will be directed to construct buildings like those at Fort Mifflin.

The CHAIRMAN. How high are they?

Admiral MASON. One story.

Mr. LOUDENSLAGER. Nine or 10 feet?

Admiral MASON. Ten feet. They have to purchase a railroad track and have a little derrick in them.

The CHAIRMAN. How about this locomotive, \$3,500?

Admiral MASON. It is a compressed-air locomotive for pulling the cars around the magazine. It is impossible to get around with a steam engine. We use the air locomotive at all the magazines wherever possible.

The CHAIRMAN. Have you one there now?

Admiral MASON. I think not yet.

The CHAIRMAN. The next item is, "One hoisting crane on wharf, \$2,000?"

Admiral MASON. This is for handling ammunition on the wharf. Nearly all the ammunition goes to and from this station from the wharf. There is no railroad track connected with the navy-yard; at present, it is 3 miles away.

The CHAIRMAN. Is there any track there at all?

Admiral MASON. Down to the wharf, and going around to the different magazine buildings.

The CHAIRMAN. The next item is, "New magazine attendants' quarters, \$3,500?"

Admiral MASON. This house is required for the magazine attendant now occupying quarters No. 3, which are in such bad condition as not to warrant repairing.

The CHAIRMAN. The next item is, "New floors in buildings Nos. A 1, 2, 3, and 4, \$6,000?"

Admiral MASON. That is necessary. The present floors will not stand the weight and they need replacing.

The Bureau is particularly desirous of putting the naval magazine at Mare Island, Cal., on a good basis, owing to the increased demands upon it caused by the number of vessels now on the Pacific coast, and it is believed that the improvements asked for herein are very necessary to provide for the increasing demands upon this station.

In past years the Mare Island magazine has not been appropriated for to any great extent, the Bureau endeavoring at all times to reduce estimates to the lowest limit, but the Bureau is of opinion that this magazine should be improved as much as possible at the earliest practicable moment.

The CHAIRMAN. The next item is, "Torpedo station, Newport, Rhode Island; coal shed, \$8,000."

Admiral MASON. To place under cover the large amount of coal which now has to be kept in the open. The establishment of the torpedo factory will still further increase the coal used at the station, which coal should be protected. The present coal shed is old, dilapidated, and dangerous, and only partly protects the coal allowed for the station. Coal stored in the open deteriorates, and the loss in money value from this fact represents a considerable item to be taken out of the limited appropriations of the torpedo station.

Mr. LOUDENSLAGER. How much coal do they use there during the year?

Admiral MASON. Three thousand five hundred tons on the average.

Mr. LOUDENSLAGER. During the year?

Admiral MASON. Yes, sir; I think so.

Mr. LOUDENSLAGER. You do not get it all at once?

Admiral MASON. We want to get as much as possible at one time, at least by the boat load.

Mr. LOUDENSLAGER. What is the size of that shed?

Admiral MASON. We have not the drawings. The present shed is about 40 by 80 or 100 feet.

Mr. LOUDENSLAGER. You have a shed there now?

Admiral MASON. There is an old tumbled down place; it is worse than useless.

The CHAIRMAN. This shed is going to cost a good many times more than the coal you put in it?

Admiral MASON. Eight thousand dollars. It has got to be a brick shed. If the committee desires I will have the plans sent down.

Mr. LOUD. Will this shed be something similar to the one at New London?

Admiral MASON. No, sir; not like that.

Mr. LOUD. How many thousand tons will that hold?

Admiral MASON. One thousand eight hundred tons.

The CHAIRMAN. The next item is "steel track, \$650?"

Admiral MASON. That is absolutely necessary for handling stores between wharf, storehouse, and torpedo factory.

The CHAIRMAN. The next item is "General storehouse."

Admiral MASON. The capacity of the present storehouse is insufficient. Stores have to be put wherever a place can be found, even in widely separated places. This prevents quick and economical handling, and tends to loss and waste. The present storehouse is old, insanitary, and unsafe. It has been condemned by a board of survey.

The present storehouse is small, it has been patched up twice, and is now tied by cross rods. A new storehouse is really necessary.

The CHAIRMAN. The next item is "New water main across harbor, \$3,500?"

Admiral MASON. The torpedo station at present is supplied with water from the Newport waterworks by two 3-inch mains that are laid from the dock of the New England Navigation Company to the East boathouse. Experience of many years at the station has proved, except under ordinary conditions, that these pipes are not sufficient. Sometimes they are broken by vessels anchoring on them, and sometimes in extreme cold weather they are frozen. When this has happened the supply of water for the station has been temporarily maintained from other sources. In view of the fact that the new torpedo factory when in operation will require a constant flow of water of much greater volume than would ever be necessary under present conditions, it is evident that a new main is absolutely necessary for the efficient service of the station.

Mr. LOUDENSLAGER. What is the size of the main?

Admiral MASON. Two 3-inch mains.

Mr. LOUDENSLAGER. What is the size of the proposed main?

Admiral MASON. I have no record of that.

Mr. LOUDENSLAGER. What is the distance?

Admiral MASON. It is across from Goat Island.

Mr. LOUDENSLAGER. About a thousand yards?

Admiral MASON. It is about 500 yards.

Mr. LOUDENSLAGER. This is about \$1.50 a foot?

Admiral MASON. I do not think from my knowledge of the way the commandant there estimates that it is exorbitant.

The CHAIRMAN. The next item is, "Additional machinery for torpedo factory, \$50,000?"

Admiral MASON. This item is absolutely necessary to continue the equipment and development of the torpedo factory, which was established by act of Congress at the last session. The funds allowed the torpedo station for its current work are not sufficient for the maintenance of this additional factory, and the Bureau is of the opinion that the sum asked for is necessary to carry on the work.

The CHAIRMAN. What kind of machines?

Admiral MASON. This is a further increase. We have machinery now that will allow us to manufacture 50 torpedoes a year, I think it is. This increase of machinery ought to increase the capacity to 100.

Mr. PADGETT. Would a hundred torpedoes a year give us all we would need? How many do we use currently in a year?

Admiral MASON. Torpedoes are not expendable unless you lose them. We lose about 10 per cent a year, but it is going to take a number of years for us to get about 1,200 or 1,500, the number which has been suggested.

The CHAIRMAN. The next item is, "Repairs to sea wall, \$5,150."

Admiral MASON. This is to continue the repairs on sea wall on west side of island and to provide granite coping, and also pointing about 685 feet of the present wall. That is necessary. I do not know whether your attention was called to it when you were there or not.

The CHAIRMAN. The next item is: "Naval magazine, New York Harbor: For naval magazine, New York Harbor (Iona Island): Marine barracks, \$15,000?"

Admiral MASON. At present there is room for only two noncommissioned officers and ten privates. If the contemplated addition to the marine guard is made larger quarters will be required. The quarters now used as a marine barracks is part of an employees' double cottage, and not suitable for barracks. The erection of a barracks would give additional quarters for a gunner.

There are three gunners attached to the station and a commissioned officer. The commissioned officer and one gunner live there. We have just arranged so that one gunner lives there by fixing up one of the magazine attendant's house. It would be very desirable at a large distributing magazine like that to have another gunner living on the grounds. In addition, the marine guard could be increased. They depend almost entirely upon the marines as fire protection and guards.

The CHAIRMAN. The next item is "Latrines and washroom, power house, \$2,500?"

Admiral MASON. There is no washroom for employees. The one water-closet is inadequate to meet the sanitary requirements of the present number of employees, which is about 150, while the capacity of the water-closet is but two.

Mr. LOUDENSLAGER. This is for the power house?

Admiral MASON. At the power house, for the use of all the people.

Mr. LOUD. How many employees would use it?

Admiral MASON. There are about 150 employees at the station.

Mr. LOUDENSLAGER. Are there any other latrines on the island?

Admiral MASON. None except temporary ones.

The CHAIRMAN. The next item is: "For naval magazine, navy-yard, Puget Sound, Washington?"

Admiral MASON. This is to complete, as contracted, the appropriation which was authorized some time ago.

"One fuze house, \$2,200; one observation magazine, \$3,750; one magazine, \$7,000; one watchman's house, \$4,500; one stable, \$1,500; railroad system, \$15,400." The Bureau recommends the appropriation of the sums asked for above for improving the naval magazine at the navy-yard, Puget Sound, Wash., as this is now and will later become the most important station on the Pacific coast. It has only

in recent years been established, and the growing demands of the Navy by reason of the movements of the fleet on the Pacific coast make it absolutely necessary that some arrangements should be perfected for handling stores and looking after the outfits of vessels which arrive at this station.

While it is not practicable to state the urgency of each one of the items above mentioned, it is thought that all of them are necessary for the equipment of a proper establishment at the station, and it is urgently recommended that the sums asked for be allowed. This is within the amount originally intended to be appropriated.

The CHAIRMAN. This covers the plan?

Admiral MASON. Yes, sir; I think this covers the plan.

The CHAIRMAN. Last year we gave you \$75,000?

Admiral MASON. Yes, sir.

The CHAIRMAN. This comes up to the original amount provided for?

Admiral MASON. I think this is within that limit.

The CHAIRMAN. The total cost was not to exceed \$150,000?

Admiral MASON. Yes, sir; this comes inside that amount.

The CHAIRMAN. What is the total?

Admiral MASON. About \$34,350.

The CHAIRMAN. The next item is, "Navy-yard, Pensacola, Florida: Construction of water tank, tower, etc., \$5,000?"

Admiral MASON. The Bureau obtained an appropriation last year of \$5,000 for this work. It advertised for the construction of the water tank, tower, etc., but all the bids exceeded the appropriation from \$3,000 to \$5,000, which was no doubt due to the marked increase in the cost of both labor and material since the original estimate was made two years ago. The Bureau, therefore, is of the opinion that at least \$5,000 more should be appropriated for the purpose, as the installation of this tank, water tower, etc., is considered absolutely necessary.

The CHAIRMAN. The next item is, "Navy-yard, Pensacola, Florida: Philippine Islands: For naval station, Olongapo, Philippine Islands; one chemical laboratory for testing smokeless powder, \$2,000; one set of quarters for inspector of ordnance and powder, \$6,000?"

Admiral MASON. The Department has recently authorized the Bureau to establish at the naval station, Philippine Islands, a chemical laboratory for the purpose of testing powder for vessels in the Pacific Squadron. The instruments and materials formerly used by the inspector of powder at the works of the California Powder Company, Santa Cruz, Cal., have been shipped to the Philippine Station and will be used in the laboratory. It will be necessary, however, later on, to provide a building for the laboratory, and it is estimated that a suitable one can not be built for less than \$2,000.

It will also be necessary to have quarters for the inspector of ordnance and powder, and it is thought that not less than \$6,000 will be required for this purpose, the necessity for this position being a permanent one as long as we have vessels on the Pacific coast.

We have a pretty good magazine at Olongapo. Congress gave us an appropriation of \$50,000 and they have an excellent magazine for that price.

The CHAIRMAN. Is there one at Cavite?

Admiral MASON. There is the old fort at Cavite, which is used as a magazine, but it is in the middle of the yard and too dangerous a place to store ammunition.

The CHAIRMAN. You do not do any testing there?

Admiral MASON. We are trying to get away from Cavite as much as we can on account of the dangerous proximity of the magazines to the yard and shops.

The CHAIRMAN. The next item is "Armor and armament," under "Increase of the Navy," on page 210. You are asking \$7,000,000 and you have sent in a supplemental estimate for the amount of \$2,000,000?

Admiral MASON. That is from last year; that is a deficiency provision for last year's appropriation which we did not get. If you remember, I telephoned to you that only \$1,000,000 was in the bill for the two new battle ships, while we asked for \$3,000,000.

Mr. LOUDENSLAGER. You say you have a deficiency from last year?

Admiral MASON. Yes, sir. We asked for \$9,000,000, I think it was, taking in only one battle ship. They appropriated for two. So we asked an increase of \$3,000,000 and the committee gave us \$1,000,000. I called the attention of the chairman of the committee to it, but the bill was up before the House at that time. At any rate it was considered too late, and I was told to bring it up later.

Mr. LOUDENSLAGER. Have you entered into any contracts for the new ships?

Admiral MASON. Everything is contracted for, I think, for the new ships, right up to date.

Mr. LOUDENSLAGER. And the delivery of armor?

Admiral MASON. Yes, sir; I think we have had deliveries of armor.

The first appropriation under this heading was dated March 3, 1887. The following are the amounts that have been appropriated since and including that date:

March 3, 1887.....	\$6,128,362	February 14, 1902 (deficiency).....	\$4,000,000
September 7, 1888.....	2,000,000	July 1, 1902.....	9,000,000
March 3, 1889.....	2,500,000	March 3, 1903.....	10,000,000
June 30, 1890.....	2,500,000	February 18, 1904 (deficiency).....	2,000,000
March 2, 1891.....	4,000,000	April 27, 1904.....	12,000,000
July 19, 1892.....	2,000,000	March 3, 1905 (deficiency).....	6,000,000
July 26, 1894.....	4,000,000	March 3, 1906.....	18,000,000
March 2, 1895.....	4,837,670	June 29, 1906.....	15,145,000
June 10, 1896.....	4,371,454	March 2, 1907.....	10,000,000
March 3, 1897.....	7,220,796		
May 4, 1898.....	7,162,800		
March 3, 1899.....	4,000,000		
June 7, 1900.....	4,000,000		
March 3, 1901.....	4,000,000		
		The total amount appropriated to date is	144,866,082

As will be noted, for the year 1907-8 the Bureau received \$10,000,000, although its estimates showed that it needed \$12,000,000—which sum it asked for—but the committee reduced the amount to \$10,000,000. The Bureau, in a letter to the Secretary of the Navy, under date of January 2, 1908 (copy appended), again pointed out the necessity for the additional \$2,000,000, and it is understood that the Department has brought the matter to the attention of the committee. This money will be required for use by the middle of April.

Toward the end of the last fiscal year it was expected that there would be a deficiency and the Bureau requested the Department's permission to allow it to ask for the sum of \$1,500,000, but it was considered inadvisable to do so. The Bureau cut expenses in every

possible way consistent with the needs of the service, and on July 1 the shortage only amounted to about \$500,000. This necessitated deferring the payment of a number of bills until the new appropriation of \$10,000,000 became available, when the amount named—\$500,000—was immediately drawn and the bills paid, thus reducing the available funds for 1907-8 to approximately \$9,500,000.

The Bureau's estimates for the fiscal year 1908-9, \$7,000,000, were prepared with the data then available, and are extremely conservative and low, and conditions may compel the Bureau at a later date to ask for additional funds, and in case any new vessels are authorized this year a sufficient sum must be added to this amount to provide for the year's work on their ordnance outfits. This prediction that the estimates for 1908-9 may have to be increased is primarily based on an indicated more rapid progress on outfits than was contemplated when its estimates were made up and commercial conditions, such as increasing cost of labor and material, and consequent increase in cost of production.

It is also necessary in order to keep abreast of improvements in ordnance material to make numerous changes in designs while the work is progressing, involving experiments, examinations, and researches, the cost thereof not being possible to anticipate when the estimates are prepared.

The above expenses, while they have always been considered, are more emphasized now than they were when the appropriation was extremely large and a large number of ships were under construction.

The immediate necessity for the \$2,000,000 already referred to is caused by the fact that under the Department's instructions all work on vessels now in hand, especially two large battle ships, was ordered expedited as much as possible, thus making more rapid payments for both labor and material than was originally contemplated. This work will be still further expedited and brought to completion at the earliest practicable date, the Bureau making every effort to have ordnance ready and not delayed in any way whatever.

In reference to the Bureau's estimate of \$7,000,000 and the statement that it was extremely conservative and low, the Bureau wishes to point out to the committee that this sum may have to be increased to \$9,000,000, but it can not be definitely stated until the Bureau has had a complete inventory made of stock on hand and material yet to be delivered, which may reduce the amount stated. This investigation is now being made.

NAVY DEPARTMENT,
BUREAU OF ORDNANCE,
Washington, D. C., January 2, 1908.

SIR: Referring to Department's memorandum of the 20th ultimo, requesting a statement of urgent deficiency estimates:

1. The Bureau desires to call the Department's attention to its letter No. 19800, of January 29, 1907, relative to appropriation "Increase of the Navy, armor and armament," as follows:

Referring to House bill No. 24925 (Report No. 6713) making appropriation for the naval service for the fiscal year ending June 30, 1908, and for other purposes.

(1) The Bureau invites attention to page 81, lines 3 to 17. Inasmuch as the bill as reported authorizes the construction of an additional first-class battle ship, similar in all

essential characteristics, and additional to the battle ship authorized by the act making appropriation for the naval service for the fiscal year ending June 30, 1907; and two torpedo-boat destroyers, this increase will make it necessary to increase the amount appropriated in the naval bill, page 83, lines 15 to 17, under the heading "Armor and armament," from \$9,000,000 to \$12,000,000, the \$3,000,000 additional being for commencing work on the extra battle ship and the two new destroyers.

(2) It is urgently recommended that this matter be brought to the attention of Congress, as the amount is absolutely necessary for the purpose mentioned.

2. It has been necessary to proceed with ordnance work on the additional vessels therein referred to, which were authorized by the last Congress, in addition to work on outfits for vessels previously authorized. As a consequence the Bureau finds that its appropriation of \$10,000,000 will be inadequate to meet the necessary payments during the remainder of the present fiscal year. The balance available on January 1 was approximately \$3,500,000, which is about sufficient for three and a half months' payments. It will therefore be necessary to ask Congress for the additional \$2,000,000 to carry on the work with the diligence and expedition necessary to have ordnance outfits in readiness when required for installation. This bears out the Bureau's prediction in the letter above referred to, when it asked that \$12,000,000 be appropriated and Congress reduced the amount to \$10,000,000.

3. It is impracticable to meet this deficiency by holding up bills and paying them after July 1, as was done a year ago, owing to the relatively greater amount of the deficiency due to the failure of Congress to appropriate the amount estimated to be necessary for the current fiscal year and the further fact that the estimate for next year is so much less than for some years past and is barely sufficient to meet the estimated requirements for the fiscal year 1909.

4. Furthermore, as this appropriation is made "towards the armor and armament" of vessels authorized, and the work must progress as rapidly as facilities will permit, it is not practicable to determine so far in advance as when the estimates are made up the exact amount that will be necessary to meet payments during the year, nor to govern the expenditures during the year as in the case of other specific appropriations. The aim of the Bureau has always been to estimate as closely as possible under this appropriation, even though this will sometimes result in a deficiency. In the present instance the Bureau's estimate of \$12,000,000 appears to be very near the amount actually required, and when Congress reduced this amount by \$2,000,000 and appropriated only \$10,000,000 for this fiscal year it practically created the deficiency which is the subject of this letter.

5. The Bureau desires to be informed by the Department whether this amount should be asked for as an urgent deficiency, as a general deficiency, or first submitted to the Committee on Naval Affairs when the estimates for the next fiscal year are under consideration. This last method was followed some years ago in securing an increase in estimates from \$14,000,000 to \$18,000,000. This is not a deficiency in the ordinary sense of the word, as Congress is already aware of the Bureau's prediction that \$12,000,000 would be necessary for this fiscal year, and the chairman of the Committee on Naval Affairs in discussing the subject during the last session of Congress

requested that the matter be brought to its attention when the necessity for the additional amount became apparent.

Respectfully,

N. E. MASON,
Chief of Bureau of Ordnance.

The SECRETARY OF THE NAVY.

As a matter of fact, I think nearly all the material for the new battle ships has been delivered and is being worked on—that is, the material that we are going to use in manufacturing.

The CHAIRMAN. You mean for the ships authorized last year?

Admiral MASON. Yes, sir. Of course the material that is contracted for we have paid out no money for as yet. Ordnance is very much ahead of what it was two or three years ago.

The CHAIRMAN. Have you made any contracts for armor during the last year?

Admiral MASON. We made the contracts for the armor for the last two battle ships.

The CHAIRMAN. What is the price?

Admiral MASON. It is a little higher than the last.

The CHAIRMAN. I wish you would put in the hearing a statement as to the price and also who were the bidders; put in the usual statement as to the contract.

Admiral MASON. The following is a brief statement concerning the latest armor bids for battle ships Nos. 28 and 29, appropriated for last year. If the committee so desire copies of all the papers and correspondence can be furnished to be put in an appendix to this report.

In response to the Department's advertisement, dated April 22, 1907, for armor for battle ships Nos. 28 and 29, bids, opened on June 20, 1907, were submitted by the Bethlehem, Carnegie, and Midvale Steel companies at the following prices:

	Class A.	Class B.	Class C.	Class D.
	<i>Per ton.</i>	<i>Per ton.</i>	<i>Per ton.</i>	<i>Per ton.</i>
Bethlehem Steel Company.....	\$420	\$400	\$400	\$400
Carnegie Steel Company.....	420	400	400	
Midvale Steel Company.....	<div> <div>a 410</div> <div>a 428</div> <div>a 550</div> </div>	<div> <div>a 410</div> <div>a 428</div> <div>a 550</div> </div>	410	410

^a As per schedule.

Each company offered to supply the full amount required.

The arbitrary schedule adopted by the Midvale Steel Company was made up as follows:

Group I, armor for main belt, main belt athwartship armor, upper casemate diagonal armor, and armor around gun positions, all at \$410 per ton.

Group II, armor for barbettes, lower casemate, torpedo directing station, and turret sides and backs, all at \$428 per ton.

Group III, armor for port plates for turrets, conning tower and its door, all at \$550 per ton.

Group IV, all class C armor, at \$410 per ton.

Group V, all class D armor, at \$410 per ton.

The bids of the Bethlehem and Carnegie companies were made in strict accordance with the forms of proposal furnished by the Department, wherein bidders were called upon to submit prices, limits as to quantities and times and rates of deliveries of armor described in the specifications as classes A, B, C, and D, classes A and B being

distinguished only by dimensions as to thickness, process of manufacture, and tests to be met, and classes C and D each having special characteristics of their own.

The Midvale Steel Company in submitting its bid evidently took into consideration the difficulties of manufacture of certain portions of armor required for vessels, and gave prices, and times and rates of deliveries of armor described by them under so-called "Groups," based upon required shapes and machining, and not on thickness, process, and tests, as described in the specifications. Such a form of "grouping" was proposed by that company to the Bureau of Ordnance before the specifications were issued, but was not in accordance with the Bureau's wishes and was not incorporated in the specifications nor in the forms of proposal.

It having been deemed manifestly unfair to select out for one company, at a slightly reduced price, all the armor presenting the least difficulties of manufacture, and to hold the other companies to furnishing only the more difficult armor at a price, submitted in strict accordance with the forms of proposal furnished, and evidently based upon the average cost of manufacture of all the armor required, an analysis of the three bids was made by applying the prices submitted to the amounts of each "class" (in the case of Bethlehem and Carnegie) and "group" (in the case of Midvale) required to fulfill the total requirements.

This analysis showed that on account of its "grouping" system, the average price per ton submitted by the Milvale Steel Company for all the required class A and B armor combined was \$8.32 higher than that bid by the Bethlehem and Carnegie companies; that their price for class C armor was \$10 per ton higher than that of Bethlehem and Carnegie; and for class D armor, \$10 per ton higher than Bethlehem's bid, Carnegie not bidding for this class of armor. Applying the prices submitted by the Bethlehem and Carnegie Steel companies to "groups" on the basis of the proportionate values assumed by the Milvale Steel Company, the bid of the latter company was found to be higher in each case by the following amounts:

Group I.....	\$8.00
Group II.....	8.35
Group III.....	10.73
Group IV.....	10.00
Group V.....	10.00

It was therefore decided that the lowest prices bid, in accordance with the forms of proposal, were those submitted by the Bethlehem and Carnegie Steel companies.

With a view, however, to encourage manufacturers to develop plants which add to the war resources of the country, on account of the necessity of such special plants having on hand sufficient work to enable them to keep up the material and trained personnel, to encourage competition, to insure expeditious deliveries should occasion demand, and in consideration of the closeness of the bid of the Midvale Steel Company, it was considered desirable to award a portion of the armor required to that company, provided they agreed to contract for it at the prices of the lowest bidder.

This policy of the Department, adopted in July, 1906, when the preceding award for armor was made, was discussed in the statement of the Hon. Charles Bonaparte, Ex-Secretary of the Navy, before the Committee on Naval Affairs, House of Representatives, on January 18, 1907.

The Midvale Steel Company accepted the prices of the lowest bidder, and contracts were awarded in the following approximate amounts, the allotments being proportionately distributed on such equal terms as to difficulties of manufacture as were possible:

Manufacturer.	Class A (tons, at \$420 per ton).	Class B (tons, at \$400 per ton).	Class C (tons, at \$400 per ton).	Class D (tons, at \$400 per ton.)	Total tons.
Bethlehem.....	3,082.36	294.32	146.07	56.59	3,579.34
Carnegie.....	2,997.42	431.65	109.00		3,538.07
Midvale.....	1,870.66	227.09	143.07	18.09	2,258.81
Total.....	7,950.34	953.06	398.14	74.68	9,376.22

COMMITTEE ON NAVAL AFFAIRS.

House of Representatives,
Washington, D. C., Tuesday, January 14, 1908.

The committee met at 10.30 o'clock a. m. Present: Representatives Foss (chairman), Loudenslager, Mudd, Loud, Thomas, Dawson, Olcott, Ellis, Padgett, Gregg, Talbott, and Hobson.

The committee thereupon resumed the consideration of the naval appropriation bill.

STATEMENT OF REAR-ADMIRAL N. E. MASON, U. S. NAVY, CHIEF OF THE BUREAU OF ORDNANCE, NAVY DEPARTMENT.

The CHAIRMAN. Now we will have Admiral Mason's statement.

Admiral MASON. Referring to the joint resolution, etc., in which the Secretary of the Navy is to be authorized to utilize all ammunition and other supplies on hand under the appropriation "Increase the Navy, armor and armament," for general issue to ships in commission as though purchased under the appropriation for ordnance and ordnance stores.

The Bureau of Ordnance in 1887, and, in fact, all the bureaus of the Navy Department, were directed to turn over the account keeping of stores to the Bureau of Supplies and Accounts; and the other bureaus are really not supposed to keep any accounts. As a matter of fact, in Ordnance they found it utterly impossible to get along in that way, so in 1897 a system of store cards was started for ordnance material of all sorts, which stood us in very good stead during the Spanish War and has been of great use to us since. Although this system will not give us the titles or the actual costs of the articles, we have a very good record of what is on hand, available, in good condition or bad.

In regard to the ammunition now on hand which is available for use, in good condition, and which constitutes the total ammunition supply of the service, being considered in making up the reserve, we have—

Projectiles, cost price.....	\$12, 325, 000
Serviceable smokeless powder charges, cost price.....	14, 863, 000
Unserviceable smokeless powder, cost price.....	1, 789, 365
Explosive "D," cost price.....	99, 000
Black powder, cost price.....	134, 250

Explanation of this unserviceable powder will be given later.

These prices are correct within 10 per cent for powder and 20 per cent for projectiles. The list was made up rather hurriedly from store cards which do not show cost prices.

In addition to the amount above mentioned, not included therein, there is on hand brown powder amounting to 1,587,000 pounds, the cost price being \$506,000. Two years ago about 800,000 pounds of this same powder was transferred to the Ordnance Department of the United States Army, they intending to use it for target practice. They, however, found it so unsuitable for that purpose that

practically none has been fired, and they still have it and wish to return it.

As mentioned in my previous testimony before the committee, we have endeavored to get reasonable bids for this material, this brown powder, after having it condemned as unserviceable for naval use. As far as I remember now, we have never gotten a bid of over 1 cent a pound delivered to the bidder. This 1 cent would not pay for our sending it to him. There is no use at all of keeping the powder on hand. It costs a certain amount for supervision, but more especially it costs us in space, and within the last month I have been compelled, in order to get room, to put a certain amount of this brown powder in a temporary shed which we built in one corner of the magazine grounds, protecting it as much as possible from the weather.

The only use that the powder can be put to, to my mind, is to extract the sodium nitrate which it contains, and use the product for the purpose of manufacturing acids for smokeless powder.

Mr. LOUDENSLAGER. Would that pay the expense of the process?

Admiral MASON. We do not know. Probably it would not pay the expense of leaching it out, unless that work could be done between times. While the watchmen and other people are doing nothing else they could be attending to that. The greater part of this brown powder was probably purchased under the "Naval Defense" act of 1898. The last of it was delivered in 1899.

Mr. TALBOTT. What is your recommendation as to that, Admiral?

Admiral MASON. To dispose of that if possible; otherwise to destroy it. Of course, that has to be done by process of law—a survey condemning it, in the first place.

Mr. TALBOTT. Have you the authority of law to do that now?

Admiral MASON. Oh, yes; we can do it now. This matter only came up in answering certain other questions in my testimony of the other day.

Now, in regard to the unserviceable powder. We have on hand smokeless powder unserviceable because of low stability to the amount of 1,508,630 pounds; and smokeless powder unserviceable because of incorrect granulation, 974,600 pounds; total, 2,483,230 pounds, at a cost price of about \$1,789,365. This low-stability powder can be reworked and reissued to the service as good as new at a price of about 25 per cent of the original cost. As to the incorrectly granulated powder, about one-half of it will be reassigned to other guns than those for which it was made. The other half will also have to be reworked.

In regard to the ammunition which will be turned over under the joint resolution, there is 3,300,000 pounds of smokeless powder at a cost price of \$2,376,000, and, in addition, projectiles, fuses, etc., at a cost price of \$660,000; the approximate total value of this ammunition being \$3,036,000. This is all serviceable ammunition and is counted in in making our estimates for reserve ammunition.

It does not necessarily answer as ammunition for new ships, as it is quite probable that the most of it, particularly the powder, will not be suitable for their guns; but when transferred to general stock it can then go to ships in service without causing any transfers on the books of Supplies and Accounts.

The CHAIRMAN. Why can not the Secretary of the Navy make these transfers?

Admiral ROGERS. It was stated on the floor of the House, when the point of order was made against this very provision in the appropriation bill for last year, that the Secretary could do that very thing. Unfortunately, however, he can not, because purchases under all "Increase of the Navy" appropriations can be used for new ships, and new ships only. That is the reason. The law is against it.

The CHAIRMAN. The general law, which you will find on the first page of the Naval Regulations, is to the effect that the Secretary of the Navy shall distribute the business of the Department as he may see fit.

Admiral ROGERS. Yes; he can distribute the business of the Department, but this is something more than business. It is an expenditure of money and stores under the law. It is not a matter of distribution of duties between bureaus.

The CHAIRMAN. Then, Admiral, the total amount of really unserviceable powder and ammunition, projectiles, and one thing and another, is how much?

Admiral MASON. Unserviceable brown powder, \$506,000.

The CHAIRMAN. And projectiles and so on?

Admiral MASON. I think that takes in very few projectiles which we made for modern guns. It is mainly unserviceable powder; but there are some cast-iron projectiles, old shrapnel, and things of that sort, and old fuses—fuses going away back ten and fifteen years—which are now obsolete and which are now considered unsafe. They are in small amounts.

The CHAIRMAN. How much would they amount to, in round figures?

Admiral MASON. I should say not more than \$100,000 at the most, speaking of their cost price.

The CHAIRMAN. Are there any questions from Admiral Mason? If not, we will hear from Paymaster-General Rogers.

Mr. LOUDENSLAGER. How much will it cost to destroy this unserviceable brown powder, in your judgment, Admiral?

Admiral MASON. Probably it would have to be burned; or it can be taken out and thrown overboard. It is, fortunately, stuff that is soluble. It could be taken on a tug out to sea and dumped overboard and it would disappear.

Mr. LOUDENSLAGER. No harm could come from it?

Admiral MASON. No harm could come from it at all, so it would be a matter of very small cost; or you can put it out in one corner in the open, spread it out, touch a match to it, and it will burn up.

Mr. LOUDENSLAGER. That would be more expensive than dropping it overboard?

Admiral MASON. It would be more expensive, and there would also be a certain amount of danger from fire.

Mr. LOUDENSLAGER. Yes.

The CHAIRMAN. Is that all, Admiral, that you desire to say?

Admiral MASON. Yes, sir; I think so; except that possibly I might add this for the benefit of the committee: After asking Admiral Rogers I find that he agrees that it would help out very much indeed to have all of the ammunition of the Navy under one head. That, as

you remember, was one of the questions of yesterday about the ammunition for new ships. If the word "new" was left out and it read simply "ammunition for ships," or "ammunition for the Navy," it would be a great deal better. I think that the Navy Department and the Bureau of Ordnance could be trusted to see that they keep proper reserve. They would not waste it, and it would facilitate the accounts very much.

The CHAIRMAN. All right.

Mr. LOUDENSLAGER. Then you would not suggest any further appropriation for reserve ammunition?

Admiral MASON. Not as reserve.

Mr. LOUDENSLAGER. That is what I mean.

Admiral MASON. Of course we would come to the committee and say, "We have increased this amount for ammunition, because we wish to increase our reserve."

Mr. PADGETT. You simply want it as a supply?

Admiral MASON. Yes, sir.

[No. 4.]

**STATEMENT OF REAR-ADMIRAL R. C. HOLLYDAY, U. S. N., CHIEF
OF THE BUREAU OF YARDS AND DOCKS, NAVY DEPARTMENT.**

January 14, 1908.

The CHAIRMAN. We now turn to page 45 of the bill: "Maintenance of Yards and Docks: For general maintenance of yards and docks, namely: For books, maps, models, and drawings; purchase and repair of fire engines; fire apparatus and plants; machinery; purchase and maintenance of oxen, horses, and driving teams; carts, timber wheels, and all vehicles for use in the navy yards," etc., "\$1,500,000." Last year we gave you an appropriation of \$950,000. There appears to be an increase of \$550,000 asked for this year. Will you kindly explain the necessity for the increase?

Admiral HOLLYDAY. The necessity for the increase is fully set forth in my annual report. Shall I read it?

The CHAIRMAN. If you please; or state it briefly.

Admiral HOLLYDAY. (Reading.) "Maintenance: The appropriation 'Maintenance' bears the same relation to the navy-yards as the heart does to the human body, in that it is the vital source. From it all of the principal daily expenses must come. Thus, the law requires that the cost of the following items shall be defrayed from 'Maintenance':"

"(1) All water for every purpose. It is needless to state that a navy-yard could not be operated even for one hour without water, though as a matter of fact this same remark applies to a greater or less extent to other items.

"(2) At the present time the partial operation of all lighting, heating, and power plants, and upon the completion of the central power systems as required by act of April 27, 1904, all expenditures of this nature.

"(3) The cleaning of streets, gutters, and sewers.

"(4) The policing of the yard, pay of watchmen, roundsmen, fire department employees, etc.

"(5) Pay of men on leave, fifteen days per annum, as authorized by Congress.

"(6) The maintenance of animals for teaming and for rolling stock, carts, timber wheels, locomotives, cars, cranes, etc.

"This list is simply illustrative of the class of expenditures coming under the 'Maintenance' appropriation. To make it complete would necessitate the naming of every item coming under the general heading of 'daily uses.'

"There has been a gradual increase in this appropriation, but not along logical lines. This is due largely to the absence of any authoritative scheme for meeting the absolute necessities. For instance, the appropriation in 1904 was \$800,244.71. In 1905 the appropria-

tion was \$745,000. In 1904 Congress passed a law for the consolidation of power plants, all to be operated under and at the expense of the Bureau of Yards and Docks. It goes without saying that the operation of this law would mean a very large increase in the expenditures under appropriation 'Maintenance' and a similar decrease for the appropriations of other Bureaus, yet, at the same time this law was passed, Congress actually reduced the appropriation 'Maintenance,' instead of increasing it.

"The increase required from year to year under this appropriation has been due principally to the following causes:

"(a) The gradual increase in the number of stations. In 1897 there were 14; in 1907, there are 28.

"(b) The operation of the central power plants. While this has not entirely gone into effect at all yards, it has without exception increased the expenditures of this Bureau at all yards. At one yard all of the original separate plants are operated under the control and at the expense of this Bureau. At other yards there has been a gradual taking over of the operation and furnishing of heat, light, and power, and during the next fiscal year a larger percentage of this work will be assumed than during any previous one.

"(c) The increase in amount of work performed at navy-yards. It is difficult to realize how much the work at the navy-yards has been increasing. To illustrate, the Bureau will take one normal yard of rather below than above the normal increase. There, in 1904, 400,000 kilowatt hours of electric energy were used, while in 1907 the consumption was 1,152,332 kilowatt hours. At the same time the number of cubic feet of compressed air for power purposes increased correspondingly. Fifty million gallons of water were used in 1903, and 72,000,000 gallons in 1906. At the same yard the price of coal during the last seven years has increased from \$6 to \$10 a ton, and the cost of fuel oil has more than doubled in the past year.

"(4) The law consolidating power plants and placing their control and operation under this Bureau. This item was explained above.

"(e) Pay of men on leave. Congress has authorized the granting of fifteen days leave with pay to every employee of navy-yards and stations, but has never made appropriation to defray the cost."

The CHAIRMAN. What does that amount to; could you tell?

Admiral HOLLYDAY. About the latter part of November, in one day, I allotted about \$25,000, so as to give the men leave for the calendar year 1907. If they did not get it by the 1st day of January they lost it; and to take up the men who should have leave I allotted in one day \$25,000. The full allotment I have not in mind. I could get that.

The CHAIRMAN. Do you mean one day, \$25,000 for fourteen days?

Admiral HOLLYDAY. No; just that day, to take up what leave was due for the year 1907. I do not recall the full amount expended for that purpose. I can give you the exact sum later if desired.
[Reading:]

"The consequent lack of funds has seriously hampered the Bureau in its endeavor to carry out the law, every dollar expended for leave meaning a reduction in some other item already at its lowest econom-

ical limit. Under present circumstances the Bureau is unable to carry out the provisions of the law in a satisfactory manner.

"(f) Increased cost of labor and material. This is a fact too well recognized to require a statement.

"(g) New system of accounting: Under a system of accounting instituted at the beginning of the present fiscal year this Bureau loses about \$150,000 per annum, divided between the appropriations 'Maintenance' and 'Repairs and preservation.' Heretofore material purchased by the various Bureaus for general use and remaining unused at the end of the fiscal year was available without charge to the first department having legitimate use therefor. The new regulation requires that this same material be turned into the naval supply fund to be charged, when drawn, to the appropriation upon which used. Unless this is taken into account in making appropriations under 'Maintenance' and 'Repairs and preservation' for the coming fiscal year these appropriations will be correspondingly crippled.

"The impression is general that navy-yards are extravagantly operated, while, as a matter of fact, the expenditures for operation and upkeep are much less than for the best industrial and railroad corporations. The Bureau has secured certain information on these headings relative to railroads and industrial corporations. For the purpose of comparison, however, it has been necessary to combine the 'Maintenance' and 'Repairs and Preservation' appropriations, as they cover expenditures carried under one head by the systems of accounting of the industrial and railroad corporations. The data obtained show that industrial concerns expend an average of 6 per cent of the total valuation, disregarding depreciation, for the operation of their plants. Railroads in 1904 expended 3.95 per cent of total capitalization, or 4.59 per cent of total valuation, on maintenance and repairs. In 1905 the expenditure was 4.09 per cent of the total capitalization and 4.4 per cent in 1906. In 1906 the naval expenditures under 'Maintenance' and 'Repairs and Preservation' were 1.1 per cent of valuation. Attention is invited to the accompanying table, which shows for the last ten years a comparatively small increase in the appropriations for 'Maintenance' and 'Repairs and Preservation,' while the valuation of property involved has doubled. In other words, the Bureau has twice the amount of property to maintain, with very little more money to do the work. With double the number of stations, twice the value in property owned, with the good and sufficient reasons given under the above headings, it must be apparent that a large increase in appropriations is absolutely essential to the prosecution of the work in accordance with enacted law. Indeed, it would not have been possible to have kept all the yards in operation but for the help of other Bureaus in furnishing funds available for items in which they were particularly interested. At the yard above referred to work properly coming under this Bureau was taken care of by other Bureaus during this last fiscal year to the extent of \$52,000. This money belonged to the Government, and was appropriated for different objects. There was no saving by reason of the reduction of 'Maintenance' \$52,000, as the same amount of money was expended under another heading by another department of the Navy. In view of this showing of \$52,000 at one

yard it may be realized how far short the appropriation under 'Maintenance' for the whole Navy falls.

"The Bureau feels constrained to represent to you that some relief must be found for existing conditions. If sufficient money is not to be appropriated, then some of the yards must be closed in order that others may be efficiently operated. Neither economy nor efficiency nor exact accounting can be expected under existing circumstances, and an improper use of funds is a danger which will always exist until the present state of affairs is remedied. A conservative estimate places the requirements of the Bureau for the coming fiscal year under 'Maintenance' at \$1,500,000, and it is earnestly recommended that this sum be appropriated."

The CHAIRMAN. Now take this increase of \$550,000; what would you expend it for? Where would this increase go?

Admiral HOLLYDAY. Next year a very large increase would come under the operation of power plants. There will be a number of power plants and a number of expenditures taken up next year that have not been taken up before.

The CHAIRMAN. Heretofore we have made special appropriation for the consolidation of power plants, under the head of each yard.

Admiral HOLLYDAY. That is for installing them. This is maintenance for operating them.

The CHAIRMAN. You believe that this consolidation of heat, light, and power plants will work for economy, do you?

Admiral HOLLYDAY. I think it will cut the bills down nearly 50 per cent—40 per cent, at least.

The CHAIRMAN. What other items in this paragraph will you expend this increase for in case it is allowed by Congress?

Admiral HOLLYDAY. There will be a considerable increase on account of the cost of labor and material. There will be an increased cost on account of the change in the system of accounting of about \$150,000. That is a new system that has been put in operation this year by the Paymaster-General. It enables him to give an exact account, and is a very good system; but the bookkeeping end of it costs this appropriation for maintenance and for repairs and preservation \$150,000. It does not cost the Government anything. Before, when we got material from old stock, it was practically a gift to us; it was only a book value. We paid no money out of this appropriation.

The CHAIRMAN. But it robs the appropriation of that?

Admiral HOLLYDAY. It robs the appropriation of that.

The CHAIRMAN. But it does not rob the Government?

Admiral HOLLYDAY. No; it does not rob the Government. It was only a matter of bookkeeping; but it takes that much money from this appropriation.

The CHAIRMAN. Yes.

Admiral HOLLYDAY. In addition to that, the streets have not been kept properly cleaned, and the policing has not been done efficiently; it has not been done in a properly organized way.

As to consolidation: In addition to this matter of power plants the Secretary has within the past year put all the telephones under the Bureau of Yards and Docks. In the case of every telephone in the Navy that is authorized, the paper comes first to the Bureau of Yards and Docks. Before, every department ordered telephones as it pleased, and the consequence was that there was a great duplication,

and nobody knew what the state of affairs was. The Secretary has taken all of that and put it under the Bureau of Yards and Docks, and the intention is that the Bureau of Yards and Docks shall pay for all telephone installations, and everything pertaining to telephones, except for the actual message itself. It will make one contract. Instead of five or six departments of a yard each making a contract for ten or fifteen thousand messages a year at a certain rate the Bureau of Yards and Docks will make a contract for 500,000 messages, or 300,000, whatever the case may be, and get the correspondingly reduced rate.

We have not been able to take up that expense as fully as we should, on account of the condition of maintenance. We have taken it up at one yard; it is in operation at one yard.

Mr. OLCOTT. Do not the telephone companies themselves pay for the installation and care and maintenance of the machines, making a difference between that cost and the cost of messages? Do not the telephone companies do with the Government as they do with private institutions?

Admiral HOLLYDAY. No; the custom has been, in the navy-yards, for the various departments to buy their own telephones. You see, we have a system of our own in the navy-yards, and also what may be described as a long-distance system. Anything outside of the navy-yard is long distance, and we have to buy telephones to be used in communicating between the different departments. It is what they call a "life-rental basis," for the reason that on account of patents or something of the sort the telephone company will not actually sell the telephone. It is sold to all intents and purposes, however. We practically buy these telephones, and then we run our own lines through the yards. Then we have the trunk lines for the long-distance system. For so-called long-distance messages we have what we call trunk lines, and we have a charge to pay for that. It is the intention that the Bureau of Yards and Docks shall make all those payments, and everything of that sort, and shall pay any expense in regard to the installation of the line. Of course with the telephone company it is as broad as it is long. They would come in and run the lines and charge so much; or, if we run the lines, they just handle the messages, and we would pay another price. There is a considerable reduction in the price of the messages, based on the number of messages that you send; and by making this one contract there would be a considerable reduction, and the whole thing would be in one department. The Secretary has already ordered that, and we are carrying it out as well as we can, but we have not the money to carry it out completely.

Mr. DAWSON. Do you anticipate that the consolidation of all these telephone systems under this one Bureau will result in a saving to the Government?

Admiral HOLLYDAY. Undoubtedly.

Mr. DAWSON. Have you gone into it far enough to estimate how much of a saving it would result in?

Admiral HOLLYDAY. No, I have not; but it will result in a very considerable saving in not having as many telephones as before. Formerly we could not keep track of them; everybody was ordering telephones; and at last the Secretary, not at the request of the Bureau of Yards and Docks—I do not know why—put the whole thing under that Bureau.

Mr. DAWSON. One more question: In your statement you said that in one navy-yard, last year, work coming under your Bureau was taken care of by other bureaus to the extent of \$52,000. Now, if the increase is granted to you which you ask for in this item, will it not be possible for us to reduce the appropriations for certain other bureaus—possibly not to that extent, but to a very considerable extent?

Admiral HOLLYDAY. They undoubtedly should be reduced without any hardship on them if you can find out how much it is.

Mr. DAWSON. You did not state in your report what other bureaus it was that bore these expenditures which should rightfully have been paid by you, did you not?

Admiral HOLLYDAY. No.

Mr. HOBSON. As a matter of fact, Admiral, is not that variable?

Admiral HOLLYDAY. Oh, very variable; and on account of lack of funds we can not get any uniform custom. For instance, suppose we are operating a power plant at one yard and they do not have the money to pay for it. There would be a daily transfer from the Bureau of Construction and Repair or Steam Engineering to pay two or three men or one man—a coal passer or something of that kind—and get around the thing so as to keep the plant going in some way or other. That department would have the money under its appropriation and could legally use it. Before the consolidation they had been running all these things, and they had been buying a lot of machinery. A great deal of that has been stopped already, and there has been a saving in that way. But abnormal cases are coming up here and there where we get pinched and find that we can not run the plant unless some department helps us out. Some department comes along which is interested in it and helps us out if it can. Just the amount I do not know. Of course the Paymaster-General would be the only one who could find it out, and I do not feel sure whether he can find it out or not.

Mr. PADGETT. Do I understand you to say that when you have gotten pinched some other department has furnished you laborers to take the place of yours, and they have worked for a day or two for some other department, or are the laborers transferred?

Admiral HOLLYDAY. For instance, it required four fireman in the power plant: We hadn't enough money to foot the bill, and the departments who are receiving the power without charge said that they would stand the expense of the fireman for three days a week, and some of the other departments said they would stand the expense for three days a week.

Mr. PADGETT. Under the law can one department transfer the services of men that work in one department to another department?

Admiral HOLLYDAY. Oh, yes; there are hundreds of them transferred every day. There is a regular printed form.

Mr. LOUDENSLAGER. If you did that, to what appropriation would you charge that? Supposing you loaned the Bureau of Equipment eight or ten men for three or four weeks?

Admiral HOLLYDAY. It would depend entirely upon what the work was. The Bureau of Yards and Docks is tied down more than any other Bureau in the Navy. Our appropriations are all parcelled out, and we keep a very strict account of them. We have to do it, much more so than any other bureau.

Mr. PADGETT. In connection with that same question; say the Bureau of Equipment furnishes you with five hands for ten days. What account would you charge that up to?

Admiral HOLLYDAY. Do you mean in the power plant?

Mr. PADGETT. Well, yes.

Admiral HOLLYDAY. The yards and docks department would charge their time as desired by the equipment department, and that department would probably desire the charge to go against the same appropriation they now use where they operate any heating, lighting, or power plant.

Dr. LOUDENSLAGER. Do they have an appropriation to run the power plant when you supply the men?

Admiral HOLLYDAY. They certainly do; for instance, at the New York Navy-Yard, when this consolidation started, we had nine heating and power plants. We reduced some of them. The Equipment Bureau was running a heating plant, the Bureau of Construction and Repair was running a heating plant and an electric plant, and the Bureau of Steam Engineering also. They all have appropriations, but the consolidation has not gone into effect absolutely at any yard excepting the Norfolk yard. In that case the commandant turned over their heating and lighting to the Bureau of Yards and Docks, and this Bureau undertook to pay the expenses, and has paid them at that yard. That is the only one where that is thus paid, and in that case, and if I recollect right, putting the operation under one department doing the same service without any change whatever, excepting it being under one management, saved the Government \$9,000 the first year.

Mr. PADGETT. You say it is a common practice, and that hundreds of hands are used in transfer from one bureau to another. Do I understand you correctly?

Admiral HOLLYDAY. Yes. You asked me a question about a transfer, but not bearing on this point. That answer is correct, but it does not bear on this point.

Mr. PADGETT. I am not speaking about this power plant especially, but any other service.

Admiral HOLLYDAY. In that case they would make the charge against whatever work was being done. If there was some work to do by which 10 or 15 laborers were transferred to my bureau, that would be charged against our appropriation, and we would take it up on the books, and the pay office would be the clearing house.

Mr. PADGETT. But would you not get that much out of the appropriation for the Bureau of Equipment, say?

Admiral HOLLYDAY. No. We would get nothing from the appropriation of the Bureau of Equipment. We would get the services of men carried on the roll of the Equipment Department, but the paymaster would pay them from the Yards and Docks appropriation.

The CHAIRMAN. I wish you would put in your hearings a statement showing the expenditures under these different items for the last fiscal year. Also, I wish you would put in a statement showing just where this additional increase of money would go. Just give us what was in your mind when you asked for this large increase, which is an unusually large one. We have not increased this appropriation usually over \$50,000 or \$100,000 each year.

Admiral HOLLYDAY. And because it has not been increased before is the reason why a great deal of this work that should have been

done has been done by other departments. The appropriation has never been large enough, and the work has never been properly carried out. That is a generally recognized fact. The statement of expenditures last year is as follows:

Detailed report from navy-yards and stations of expenditures (material and labor) under appropriation "Maintenance, yards and docks," for the fiscal year ended June 30, 1907.

Navy-yard or station.	Freight and transportation (persons and materials).	Books, maps, models, and drawings.	Purchase and repair of fire engines, apparatus, and plants.	Attendance on fire engines, apparatus, and plants.	Purchase and repair of machinery and tools.	Purchase and maintenance of oxen, horses, and driving teams.	Carts, timber wheels, and vehicles for use in navy-yards.
Boston.....		\$150.68			\$1,673.22	\$3,210.77	\$544.06
Bureau.....	\$61.25						
Cavite.....	5.10	167.43	\$168.45	\$588.07	525.11	786.99	477.63
Charleston.....	373.32	61.35			102.55	2,312.84	9.60
Culebra.....						436.22	81.26
Erie, Pa.....							
Guam.....	599.20		408.02		2,854.21	6,790.39	2,783.85
Guantanamo.....		259.79			577.79	3,224.75	
Hawaii.....	5.00	6.20			30.25	1,654.40	32.75
Key West.....		80.33	3.00	1,248.54	305.22		
League Island.....		67.72	100.68	10.55	2,928.01	4,402.34	1,776.98
Mare Island.....		2.40	13.02	2,111.88	8,882.19	7,048.29	1,357.98
New London.....	40.00					187.20	
New Orleans.....		246.48	12.97		273.53	20.65	
Newport (Government landing).....							
New York.....	110.00	279.41			941.36	10,260.17	2,503.74
Norfolk.....	930.67	62.04		1,160.37	1,182.17	3,469.79	1,946.58
Olongapo.....		7.01	382.70		666.56	60.75	
Pensacola.....	377.79	16.75	529.24	723.53	1,195.98	1,791.55	366.89
Port Royal.....			7.84			6.08	
Portsmouth.....	2,082.14	67.39	59.03	1,875.86	393.26	3,451.38	123.87
Puget Sound.....		505.45	266.04	892.54	1,657.74	936.76	109.61
San Juan.....	9.00	830.38	163.28		837.71	1,016.69	6.80
Tutula.....		34.72	79.13		380.23		70.72
Washington.....	30.65	83.13	554.35	2.98	2,001.15	5,672.87	1,740.77
Total.....	4,624.12	2,928.66	2,747.75	8,614.32	27,408.24	56,734.88	13,933.06

Navy-yard or station.	Postage on public matter, telegrams, telephone rental, etc.	Printing and stationery.	Furniture for Government houses and offices in navy-yards.	Heating, lighting, and power plants (coal and other fuel, candles, oil, gas, electricity, etc.).	Heating, lighting, and power plants (attendance on).	Cleaning and clearing up yard, and care of buildings.	Water.
Boston.....	\$422.56	\$465.07	\$478.83	\$23,576.69	\$19,757.02	\$7,481.10	\$23,071.42
Bureau.....	261.78	.28					
Cavite.....		1,210.83	1,354.19	9,362.50	1,515.06	2,622.98	4,290.81
Charleston.....	299.18	528.91	75.98	3,470.16	3,393.32	1,251.87	1,438.85
Culebra.....						3,001.42	
Guam.....	14.68	516.51	592.21	11,045.30	9,331.61	2,094.58	
Guantanamo.....	15.00	1,407.58	43.75	13.40	60.80	1,031.13	4,091.26
Hawaii.....	110.03	28.16	482.40	252.04		3,351.88	40.92
Key West.....	38.50	117.98	876.34	830.90		4,052.77	78.06
League Island.....	1,664.14	678.97	478.20	38,723.63	19,139.92	8,270.16	160.00
Mare Island.....	24.99	831.04	1,123.45	32,868.42	7,919.32	11,602.19	11,672.83
New London.....	78.00			222.12		1,225.76	
New Orleans.....	290.90	171.74		949.16	1,817.12	709.68	118.20
Newport (Government landing).....	61.00	53.54	9.05	1,630.02		11.60	111.78
New York.....	556.41	979.12	1,186.43	50,727.91	25,281.70	11,554.78	34,717.56
Norfolk.....	229.63	702.28	548.45	34,844.07	14,450.71	10,852.65	13,331.32
Olongapo.....	2.60	397.99	404.60	592.78	283.31	1,769.83	
Pensacola.....	138.20	401.12	60.18	2,647.74	3,530.08	4,981.93	82.87
Port Royal.....				2,633.85	3,279.11	1,864.92	1,066.18
Portsmouth.....	515.84	228.41	109.16	36,045.31	13,569.34	4,377.87	13,025.55
Puget Sound.....	30.39	1,220.02	1,207.49	15,471.52	5,578.95	6,542.34	2,585.80
San Juan.....	48.16	157.99	29.45	1,806.59		3,675.03	2,034.91
Tutula.....		86.97	255.03	374.40	108.86	3,565.72	
Washington.....	998.11	239.92	1,390.93	4,554.15	2,689.17	12,942.46	
Total.....	5,809.10	10,424.43	10,706.12	272,652.26	131,736.40	108,834.65	111,918.32

Detailed report from navy-yards and stations of expenditures (material and labor) under appropriation "Maintenance, yards and docks," for the fiscal year ended June 30, 1907—Continued.

Navy-yard or station.	Flags and awnings.	Advertising.	Pay of watchmen.	Incidental labor and miscellaneous material.	Pay of men on leave.	Total.
Boston.....	\$114.42		\$3,906.84	\$3,864.44	\$3,578.86	\$92,295.67
Bureau.....		\$638.48		25.50		967.29
Carite.....	56.48		3,237.25	6,328.14	1,499.98	34,195.00
Charleston.....	258.30		1,852.42	5,797.70	994.78	22,221.13
Culebra.....						3,821.90
Erie, Pa.....				600.00		600.00
Guam.....	62.52			500.96	362.58	37,956.62
Guantanamo.....	326.60		1,700.72	1,338.90	356.48	14,447.95
Hawaii.....	203.86			51.25	134.72	6,383.86
Key West.....	199.92		2,448.28	214.55	543.56	11,037.95
League Island.....	111.48			3,794.61	5,310.93	87,618.32
Mare Island.....	193.06		1,064.00	9,195.94	10,003.00	105,914.00
New London.....	75.52		1,460.00		30.00	3,318.60
New Orleans.....	72.88		2,010.24	407.55	774.84	7,875.94
Newport (Government landing).....	64.76			131.80		2,082.55
New York.....	69.45		6,797.68	5,648.09	10,945.45	162,559.26
Norfolk.....	658.47		8,509.90	1,419.30	8,034.13	102,324.13
Olongapo.....	137.86		377.80	106.75	688.80	5,879.34
Pensacola.....	442.27		613.00	3,497.27	1,555.40	22,951.79
Port Royal.....	46.96		39.52		320.70	9,265.16
Portsmouth.....	88.51		3,932.40	2,470.41	7,500.00	89,945.73
Puget Sound.....	97.76			2,397.69	4,095.24	43,605.34
San Juan.....	263.78		377.52	1,864.55	713.92	13,835.76
Tutulla.....	114.67		540.00	1,264.30	328.83	7,203.58
Washington.....	151.22			2,186.76	4,760.95	39,999.57
Total.....	3,810.75	638.48	38,867.57	53,104.46	62,532.85	928,026.44

NOTE.—This statement shows expenditures under headings in use up to June 30, 1907, after which date new headings were adopted to show expenditures more in detail.

The estimates for the fiscal year 1909 are as follows. The new subdivisions of appropriation "Maintenance" were put in use by the Bureau July 1, 1907, with a view to keeping a more detailed account of expenditures. Estimates for 1909 were therefore based upon the new headings, as follows:

1. Ferriage, tolls, etc., \$15,000. Includes street-car, ferry, and bridge tickets, towage, express, delivery charges, rent of ferry wharves, etc.; excludes freight.
2. Books and drawings, \$5,000. Includes purchased books and drawings, prints, sketches, photographs, etc.
3. Fire protection, \$60,000. Includes purchase of fire extinguishers, engines, hose carts, hose, nozzles, fire buckets, ladders, and all portable accessories and repairs to and attendance on same; excludes nonportable pumps and engines.
4. Machinery and tools, \$40,000. Includes machines other than power-plant machinery and all tools; excludes nonmovable heavy machinery, such as coal-handling machinery, stationary engines, etc.
5. Live stock, \$70,000. Includes purchase, feeding, care, etc.
6. Vehicles, \$20,000. Includes purchase and repairs of carriages, carts, timber, wheels, sleds, etc.; excludes railroad rolling stock, fire engines, locomotives, cranes.
7. Postage, telegrams, and telephone rentals, \$15,000. Includes messenger services, operators, rental of instruments, lines, etc.
8. Office supplies, \$15,000. Includes stationery, typewriters, duplicating machines, time stamps.
9. Furniture, office, \$15,000. Includes carpets, pictures, safes, water coolers, etc., and repairs to same.
10. Furniture, quarters, \$25,000.
11. Power plants, \$570,000. Includes coal, oil, waste, etc., attendance on boilers, stokers, engines, turbines, generators, etc.
12. Distributing systems, heat, light and power, \$30,000. Includes labor, reading meters, trimming lamps, clearing grounds or short circuits and attendance on motors. Excludes repairs or purchases.

13. Hoisting apparatus ashore, \$14,000. Includes attendance and purchases of coal, oil, waste, etc. Excludes repairs.
 14. Elevators, \$13,000. Includes attendance and purchases of oil, waste, etc. Excludes repairs.
 15. Floating property, \$10,000. Includes attendance and purchases of coal, oil, waste, etc.
 16. Roads, walks and sewers, \$25,000. Includes cleaning and clearing.
 17. Grounds, \$40,000. Includes cleaning and clearing. Excludes purchase of seed, flowers, plants, etc.
 18. Buildings, \$35,000. Includes janitor service.
 19. Rolling stock, \$43,000. Includes locomotive and train crews, coal, oil, waste, etc.
 20. Water, \$135,000. Includes all purchases. Excludes attendance on system.
 21. Flags and awnings, \$6,000.
 22. Advertising, \$1,000.
 23. Watchmen, \$62,000.
 24. Office force, \$40,000.
 25. Leave pay, \$83,000.
 26. Lighting ships, \$20,000. Includes attendance in shifting lights on ships in commission, renewing lamps, reading meters, etc. Excludes installation of wires and lamps and removal of same.
 27. Testing and inspecting materials, \$5,000.
 28. Disposing of ships' refuse, \$10,000.
 29. Disposing of yard refuse, \$9,000.
 30. Removal of ice and snow, \$7,000.
 31. Water system, \$10,000. Includes attendance on system, pumps, meters, etc., and purchases of coal, oil, waste, etc. Excludes purchases of water.
 32. Telephone and telegraph systems, \$5,000. Includes labor, linemen. Excludes installation and repairs.
 33. Miscellaneous, \$47,000. Includes objects not above provided for. This heading is desired to be reduced as much as possible, each object to be mentioned specifically in monthly reports of work.
- Total amount required under appropriation "Maintenance" for fiscal year ending June 30, 1909, \$1,500,000.

Mr. DAWSON. If this committee is gradually to increase this item in order to take care of the work and expenses which are now being paid from other bureaus, then the committee ought to know what those other bureaus are in order that we may make a corresponding reduction in their appropriation, because if they do not have this to pay next year they will need that much less money, it seems to me.

Admiral HOLLYDAY. That would certainly be the proper thing to do.

The CHAIRMAN. Can you furnish that information?

Admiral HOLLYDAY. I can not furnish it, but I suppose the Paymaster-General could come nearer furnishing it than anyone else, though it would take a great amount of work.

The CHAIRMAN. Can you not get that information from the Paymaster-General and furnish it to the committee?

Admiral HOLLYDAY. I will do the best I can, but I do not believe I can get it.

The CHAIRMAN. If you can, please put it in the hearings.

Mr. LOUDENSLAGER. You can get the information relative to the case that you mentioned, this \$52,000, can you not?

Admiral HOLLYDAY. Yes, sir.

The statement follows:

Memorandum estimate showing the method of arriving at the total of \$52,000 referred to on page 86 of the report of the Chief of Bureau of Yards and Docks as the estimated cost of work properly coming under that Bureau, but taken care of during the last fiscal

year by other departments. The yard in question is Mare Island, Cal. Items are as follows:

Construction and Repair power plant.....	\$22,000
Steam Engineering power plant.....	12,000
Construction and Repair, janitor service.....	800
Steam Engineering, janitor service.....	600
Separate power plant at Equipment electrical school.....	1,800
Equipment, janitor service.....	900
Supplies and Accounts, janitor service.....	600
Department of Ordnance, janitor service.....	300
Teams and vehicles for all other departments.....	12,600
Furniture now purchased by other departments.....	400
Total.....	52,000

The CHAIRMAN. Contingent, Bureau of Yards and Docks, for contingent expenses that may arise at navy-yards and stations, \$30,000. Have you asked for a deficiency this year under this appropriation for maintenance, the item just preceding?

Admiral HOLLYDAY. We have not. On the 1st of February I must cut down the service under "Maintenance." I will not have money enough to run us through, and I must cut it all to pieces. There will be work left undone. We will probably have to discharge all the policemen, stop cleaning the yards, and that sort of thing; but I am not going to ask for any deficiency.

The CHAIRMAN. Now, as to the contingent expenses, you ask for the same amount as last year. Can you not reduce that; do you need it all?

Admiral HOLLYDAY. It is contingent; it is for the unforeseen things that arise. I did not ask for any more—I thought it was sufficient; but if there should come such a thing as another Pensacola storm we would need more than is asked for. The day after the storm at Pensacola the appropriation for contingent was wiped out, and that occurred in September. It went out at one swoop. But in that case the Congress took it up and made an appropriation increasing the contingent fund to \$105,000. But I do not see any reason for increasing it, though we can not tell. Nobody knows whether we will need an additional amount or not. Past experience tells that we ordinarily need at least \$30,000. If we do not need it all the balance is always turned back into the Treasury.

The CHAIRMAN. Please put in a statement showing what this expense was during the last fiscal year.

Admiral HOLLYDAY. "Navy-yard, Boston, Mass., \$1,192.67." The principal items under this head were for repairs to a burned-out armature (due to accident), providing wire-netting inclosure in building No. 39, reroofing of lower quarters (due to damage done by a severe wind storm), and overhauling certain machinery and furnishing new parts to replace some which had been stolen.

"Naval station, Cavite, P. I., \$1,241.47." The principal items under this head were for repairs and alterations to telephone system, inspection of supplies for Olongapo, and plans, surveys, and test pits for the naval medical supply depot at Canacao, P. I.

"Navy-yard, Charleston, S. C., \$333.10." This sum was expended for sewers to marine barracks.

"Naval station, Culebra, P. R., \$532.55." The expenditure under this head was for dredging the canal between Great Harbor and Seine Bay, and constructing a drawbridge over same.

"Navy-yard, League Island, Pa., \$409.28." The principal items under this head were for repairing drainage system at marine barracks, making examination of timber dry dock No. 1, installation of hand capstans about dry dock No. 2, extension of electric-lighting system to Marine Corps building No. 99, and installation of bronze bitts at dry dock No. 2.

"Navy-yard, Mare Island, Cal., \$5,232.49." The largest part of the expenditure under this head was for earthquake repairs.

"Naval station, New Orleans, La., \$90.72." This amount was expended for the pay of a subinspector on the inspection of work at Gulfport, Miss.

"Navy-yard, New York, \$2,876.36." The two principal items of expenditures were for the repair of the 7-foot sewer on Fifth street, the top of which caved in, and for repairs to elevators, furnaces, water-works, quarters, buildings, and miscellaneous.

"Navy-yard, Norfolk, Va., \$3,120.44." This amount was expended for the construction of yard-entrance gate at the east end of Barron street, for repairs to marine railway, the completion of paving near the head of slips, and for connecting ships along the water front with the yard lighting system.

"Navy-yard, Pensacola, Fla., \$78,554.82." The expenditures were almost entirely for repairs on account of damages by the hurricane of September, 1906. Other expenses were caused by the fire of March 21, 1907, which destroyed the steam-engineering foundry, smithery, boiler and coppersmith shop, building No. 2, and with it the yards and docks electric-light and power plant.

"Navy-yard, Portsmouth, N. H., \$3,658.98." The principal item under this head was the installation of gasoline tanks for the storage of gasoline for the new ferry launch. Other considerable items were for the shipping of the generating set to Pensacola, repair of roof over building No. 20, and the protection of stores of building No. 20—this building being the steam engineering pattern shop which was destroyed by fire on the evening of April 24, 1907.

"Navy-yard, Puget Sound, Wash., \$2,783.06." The principal expenditure was for construction of bulkhead on the north boundary of the yard, made necessary by the grade of Burwell avenue being much above the ground level of the yard, and for the removal of building No. 51 and its alteration for the use of the yards and docks electrician, the removal being necessary on account of the building occupying the site of the proposed dry dock.

"Navy-yard, Washington, D. C., \$566.58." This item was for changing the system of the heating in the marine barracks building by the introduction of steam from the boiler house.

It was almost all used at Pensacola.

The CHAIRMAN. "Civil establishment, Bureau of Yards and Docks, navy-yard, Portsmouth, N. H." I see that the old law is stricken out there, and new language is put in, and I notice that is the case with every navy-yard. There has been a rearrangement and perhaps an increase in the number of clerks.

Mr. LOUDENSLAGER. The real change is from per diem to annual.

Admiral HOLLYDAY. There has been a good deal of talk about putting people in the civil establishment, and like service, on per annum instead of per diem. I think the Secretary favors it, and I put it in in that way. I think the Keep Commission recommended that, though more especially, in that case, for the District of Columbia. But there seems to be a general opinion that there should be per annum pay instead of per diem, though I don't know that it makes any particular difference. I simply submit the idea to the committee for consideration. I do not urge.

Mr. LOUDENSLAGER. This means three important changes. It takes the labor from the per diem to the annual, it increases the pay, and you increase the number of men in all of the yards.

Admiral HOLLYDAY. Yes; those are the three changes. As to the increase of pay, I recommended a horizontal increase of 10 per cent straight through to the nearest amount divisible by twelve. That will govern in every case, in every item under the civil establishment, excepting in the case of chief clerks and electricians, and I have made separate recommendations for them.

Mr. OLCOTT. That also has the effect, does it not, of putting these laborers who work as per diem laborers in a position where, under the law, they will be given fifteen days leave with pay, while, if they were per diem employees they would not get that.

Admiral HOLLYDAY. They are clerks, but every employee has leave with pay.

Mr. OLCOTT. Even the per diem men?

Admiral HOLLYDAY. Oh, yes.

Mr. LOUDENSLAGER. They are employed by the day for the year.

Admiral HOLLYDAY. It does not make any difference that way. The increase would be the same. I have recommended a horizontal increase of 10 per cent in every case except in the cases of chief clerks and electricians. In their cases I have made a separate recommendation.

Mr. THOMAS. These men are under civil service?

Admiral HOLLYDAY. The civil establishment.

Mr. PADGETT. Do I understand you to say that the employees called clerks, the per diem employees, get the benefit of fifteen days' leave with pay and also sick leave?

Admiral HOLLYDAY. Yes; but the sick leave is taken out of the leave with pay.

The CHAIRMAN. Now, under "Civil establishment, Portsmouth," have you recommended any new clerks?

Admiral HOLLYDAY. At Portsmouth there is one special laborer, new; one foreman carpenter, new; and one bookkeeper, new. Those are men that are employed now. They are not new positions, but they are not paid at present under the civil establishment, but from the appropriation upon which they work. In the case of the three that are recommended, the reason they are recommended for the civil establishment is that their work is routine, and it is very hard to charge up their whole time against the various things that they are working on. For instance, there is a foreman carpenter, and he goes around and probably in the course of a day will be working on ten or twelve different things. Under the present arrangement it is difficult to charge up his time against all of those things, and

of course, as a matter of fact, we do not do it, but it is charged against the larger ones, or a half day against one and a half day against another item.

The CHAIRMAN. What about the bookkeeper? That is new.

Admiral HOLLYDAY. He is employed at present, and charged against the work he is engaged on.

The CHAIRMAN. And also the special laborer?

Admiral HOLLYDAY. Yes, sir.

Mr. PADGETT. In other words, as a bookkeeper he keeps books for some special line of work?

Admiral HOLLYDAY. No; he does this work, but he charges it as far as he can against the particular work he is working on.

Mr. PADGETT. As a general bookkeeper, how can he divide it up?

Admiral HOLLYDAY. He does the best he can.

Mr. PADGETT. Then it is simply evasion?

Admiral HOLLYDAY. It is not evasion; he charges it up the best he can.

Mr. PADGETT. But if he can not charge any of it against the civil establishment, and he does some work for the civil establishment——

Admiral HOLLYDAY. He does not do it for the civil establishment. The civil establishment means that that appropriation pays for the general work. That is the reason I recommend these routine positions be placed under the civil establishment.

Mr. PADGETT. But in doing general work, does he not do book-keeping work for all of the establishments?

Admiral HOLLYDAY. Everything; yes, sir.

Mr. PADGETT. And he gets it out of some special appropriation, but does work——

Admiral HOLLYDAY. Public works, maintenance of yards, repairs and preservation, and contingent. There is no difference so far as the Government is concerned as to the amount of money paid out, but it is whether the committee wants to authorize it under the civil establishment or to continue having it paid out of the several appropriations just mentioned.

The CHAIRMAN. "Navy-yard, Boston, Mass." That is substantially the same.

Admiral HOLLYDAY. There are two new places there; one foreman mechanic, new; and one rodman. They are employed to-day, and their work is of a routine character. We never recommend anything for the civil establishment unless it is of a routine character.

The CHAIRMAN. You have recommended an increase of about 10 per cent?

Admiral HOLLYDAY. Ten per cent increase, with slight additions or deductions to make the amount divisible by twelve.

The CHAIRMAN. Navy-yard, New York.

Admiral HOLLYDAY. There is one quartermen machinist; one stenographer and typewriter, new; and one messenger boy, new. In regard to the messenger boy, I would recommend that that be stricken out, for the reason that since submitting this I see it will not operate properly. We take the boys in on small pay and increase it slightly each year for four years, until at the end of four years they get \$2. If we put this boy in the civil establishment, and next year he would want an increase and could not get it, then he would leave us, and

we would have to get another boy, thus breaking up the arrangement.

The CHAIRMAN. Navy-yard, League Island, Pa.

Admiral HOLLYDAY. One messenger civil engineer's office, new; one bookkeeper, new. They are both now employed.

The CHAIRMAN. Navy-yard, Washington, D. C.

Admiral HOLLYDAY. One messenger boy, new. I would recommend for the same reason that I have already given, that that be stricken out, and the item above that, for one time clerk, "be increased from \$900 to \$990." I will call attention to an error there. That should be \$996 in order to be divisible by twelve.

The CHAIRMAN. Navy-yard, Norfolk, Va.

Admiral HOLLYDAY. There is one writer, civil engineer's office, new; one messenger boy, new. I would recommend that the messenger boy be stricken out.

The CHAIRMAN. Navy-yard, Pensacola, Fla.

Admiral HOLLYDAY. One messenger boy (new). That I would recommend be stricken out, and also that the electrician be stricken out, as we have an electrician there now. It was a mistake to put in an estimate for another electrician.

The CHAIRMAN. Naval station, Port Royal. That is substantially the same.

Admiral HOLLYDAY. Yes, substantially the same as last year.

The CHAIRMAN. The total is about \$4 less.

Admiral HOLLYDAY. That is on account of the leap year; \$3.50 less.

The CHAIRMAN. Naval station, Key West, Fla.

Admiral HOLLYDAY. There is one draftsman who is new. The yards and docks department looks after about all of the work there and employs a draftsman all the time. He should be paid under the civil establishment.

The CHAIRMAN. Naval station, New Orleans, La.

Admiral HOLLYDAY. We have no electrician there, and we are about starting up the power plant. In addition to looking after the power plant he will look after all work of that character for the whole yard and will be needed.

The CHAIRMAN. Navy-yard, Mare Island, Cal.

Admiral HOLLYDAY. There is a bookkeeper there (new), and one clerk (new), and both are now employed. I would like to change that recommendation. I recommend the bookkeeper (new) at \$1,080, and the clerk (new) at \$960, instead of each at \$1,000.

The CHAIRMAN. Navy-yard, Puget Sound, Wash.

Admiral HOLLYDAY. There is one special laborer, clerk (new), at \$776.28. Also one foreman laborer and head teamster (new), and one master mechanic, including Sundays (new). All of those are now employed.

The CHAIRMAN. Naval station, San Juan, Porto Rico.

Admiral HOLLYDAY. There is nothing new there.

The CHAIRMAN. Naval station, Hawaii; no change there. Cavite, Philippine Islands.

Admiral HOLLYDAY. There is one electrician (new), and that is the only change.

The CHAIRMAN. Naval station, Guam; no change there. Navy-yard, Charleston, S. C.

Admiral HOLLYDAY. One time clerk (new); one draftsman (new); one electrician (new), and one foreman laborer (new). Up to the present time that yard has been building up, and it will be opened next spring, so that these men should be appropriated for.

The CHAIRMAN. How about the master of tugs?

Admiral HOLLYDAY. When the yard is opened of course they will require a tug boat and a master of tugs.

The CHAIRMAN. If we did not put them in this year, they would still be employed under the old method.

Admiral HOLLYDAY. As to the master of tugs, I doubt if they could get anybody for that position.

The CHAIRMAN. Naval station, Olongapo, Philippine Islands. Are those all new?

Admiral HOLLYDAY. That is the yard that they are trying to build up, and those are all new. They are employed at the present time, but not in the civil establishment.

The CHAIRMAN. That covers the civil establishment.

Adjourned at 12.40 p. m.

COMMITTEE ON NAVAL AFFAIRS.

House of Representatives,

January 16, 1908.

The committee met at 10.45 o'clock a. m., Hon. George E. Foss in the chair, for the further consideration of the bill making appropriations for the naval service for the fiscal year ending June 30, 1909.

STATEMENT OF ADMIRAL R. C. HOLLYDAY, CHIEF OF THE BUREAU OF YARDS AND DOCKS.

The CHAIRMAN. We start this morning at page 85 of the bill "Public works, Bureau of Yards and Docks. Navy-yard, Portsmouth, New Hampshire." I notice that the total for "Public works, navy-yards, and stations," as shown on page 111 of the bill, is \$12,054,822; and that last year we appropriated \$3,124,940. This is quite a large increase, it being something like \$9,000,000.

I would suggest, Admiral, that you point out, for instance at the Navy-yard at Portsmouth, what are the necessary and most important things for this year.

Admiral HOLLYDAY. In preparing this estimate I have cut down every place that is possible; that is the line I have followed. In 1904 Congress authorized the consolidation of all power plants and since that time there has not been sufficient money appropriated to carry out that provision of Congress. It has gone by from year to year until I think it is important, in order that that scheme shall be completed and the economies that we desire result; that the money should be appropriated this session of Congress. I have prepared my estimates on that basis, and have considered them the most important items in cutting down the estimates.

Mr. LOUDENSLAGER. Did we not appropriate for one yard what was estimated to be sufficient to complete it last year?

Admiral HOLLYDAY. I noticed in the appropriation act for last year the words "to complete," after the appropriation for New York; but that was a mistake, because it could not be completed for the amount appropriated. The amount estimated was \$231,000 more than was appropriated last year.

Mr. MUDD. To complete what?

Admiral HOLLYDAY. Central power plant. The New York Navy-Yard was the only place, so far as I can remember, where the words "to complete" were used.

The CHAIRMAN. Referring to Portsmouth, we used the language, "Central power plant, to complete, \$60,000." Will you please point out the things you regard as most important under the heading "Navy-yard, Portsmouth, New Hampshire?"

Admiral HOLLYDAY. After cutting the estimates down all I could, the first item I have here is the item of "blasting in front of quay wall." It appears in the bill "\$30,000." The work was authorized at \$120,000, and the contract has been let, and it will require, to carry out the provisions of this contract, let under authority of law, \$60,000 to pay for that work. The Secretary of the Navy, I understand, wrote a letter to the chairman of the House Committee on Naval Affairs and also to the chairman of the Senate Committee on Naval Affairs.

The CHAIRMAN. I have that letter here. The letter is as follows:

NAVY DEPARTMENT,
Washington, December 7, 1907.

SIR: Referring to the annual estimates of the Bureau of Yards and Dock for the navy-yard, Portsmouth, N. H., for the fiscal year 1909, the sum of \$60,000 was submitted for the purpose of blasting in front of the quay wall. The Department, unaware that the appropriation act of March 2, 1907, while making appropriation for \$50,000, authorized a total cost of \$110,000, cut the estimate for the coming fiscal year from the amount submitted to \$30,000. It is now found that the contract has already been entered into for this work, and that in order to complete it within the contract time, which expires July, 1908, it will be necessary to make the full appropriation of \$60,000. It is, therefore, requested that you cause this item of the estimates, as submitted to Congress, to be changed from \$30,000 to \$60,000.

Very respectfully,

VICTOR H. METCALF,
Secretary.

Hon. GEORGE E. FOSS,
Chairman Committee on Naval Affairs,
House of Representatives.

Hon. EUGENE HALE,
Chairman Committee on Naval Affairs,
U. S. Senate.

Admiral HOLLYDAY. For those reasons that should be changed from \$30,000 to \$60,000.

Mr. MUDD. Instead of \$30,000 as it appears here?

Admiral HOLLYDAY. Instead of the \$30,000, as it appears in the bill before us; yes.

The CHAIRMAN. The first item under this heading (Portsmouth Navy-Yard) is "Sewer extension, \$6,500."

Admiral HOLLYDAY. That is needed. That is to connect sewers to buildings that we already have.

Mr. LOUDENSLAGER. Could that not go out?

Admiral HOLLYDAY. No; it could not. I looked it over carefully, and it is necessary that that should stay in.

The CHAIRMAN. "Quay walls, to extend, \$50,000."

Admiral HOLLYDAY. I have cut that out.

The CHAIRMAN. The next is "Blasting in front of quay wall, \$30,000." That is what you have already spoken of, and that has been covered?

Admiral HOLLYDAY. Yes; that is to pay for work already authorized and being done now.

The CHAIRMAN. And that will complete it.

Admiral HOLLYDAY. And that will complete this contract.

The CHAIRMAN. The next is "Pattern shop of steam engineering, additional, \$20,550."

Admiral HOLLYDAY. The conditions in regard to the pattern shop are these: Prices went up materially between the time the work was authorized and the time the contract was let. We got two bids; one was for what we wanted, and the other was another proposition within the appropriation. We accepted the larger bid, with the provision that it should go into effect if Congress appropriated this money. It would require \$20,550. It is to add a place for storage of patterns. If Congress does not appropriate this money that part of the contract will lapse, and we will finish the work with the amount appropriated. It is for storing patterns. The lower floor of this building is used for storing the material, and the upper floor is used for making patterns. As I say, this amount, \$20,550, would complete the storage accommodations for patterns.

Mr. LOUDENSLAGER. It strikes me that that is a very large sum of money for patterns of a steam engineering plant of the size of the Portsmouth plant—to put \$80,000 into that.

Admiral HOLLYDAY. I want to say in that connection, that this is on the basis of a pattern shop for the whole yard. When this is completed the other pattern shops will be done away with.

Mr. LOUDENSLAGER. How many are there now?

Admiral HOLLYDAY. The Steam Engineering has one; Construction and Repair has one; both are old and inefficient.

Mr. LOUDENSLAGER. What are those buildings to be used for?

Admiral HOLLYDAY. For other shop purposes; there is plenty of use to put them to.

The CHAIRMAN. Could you not use one of those old buildings for a pattern shop?

Admiral HOLLYDAY. No, sir.

Mr. MUDD. Under what authority do you make that consolidation?

Admiral HOLLYDAY. Not under any special authority. The Secretary of the Navy is in favor of it, and he directed me when I found anything like duplication to eliminate the item. I think he has the authority to direct the consolidation; he thinks he has the authority.

The CHAIRMAN. The next is Streets and grading, \$15,000."

Admiral HOLLYDAY. I have cut that out.

The CHAIRMAN. "Naval prison, extension (to cost \$380,000), \$100,000."

Admiral HOLLYDAY. I have a memorandum here, "Naval prison, to cost \$380,000; \$100,000. Marine barracks, to cost \$130,000; \$30,000." That makes \$130,000 asked for. That naval prison is a prison that has been authorized, but there has not been money enough appropriated to complete the scheme. There is an administration building built, and there is one wing completed and another one contemplated. There are 160 cells now in one wing, and to com-

plete the number to go in that wing will require 160 more, with plumbing, lighting and heating that will be required.

The CHAIRMAN. So this is all a part of the naval prison, down to the item, "Storehouse for combustibles?"

Admiral HOLLYDAY. Part of a scheme that has been authorized by Congress, but the money has not been appropriated, and there has never been any sum fixed, so far as I know.

The CHAIRMAN. We looked at that naval prison this summer. I think we got a very good idea of it.

Mr. MUDD. How much have we appropriated?

Mr. LOUDENSLAGER. I think we have appropriated \$250,000.

Admiral HOLLYDAY. About that. [After reference to a memorandum.] There have been \$307,000 appropriated.

The CHAIRMAN. Now, what about the storehouse for combustibles?

Mr. MUDD. One minute before we go to that. Would it not be better to word it "extension of naval prison?"

Admiral HOLLYDAY. That is the way I have it on my notes.

The CHAIRMAN. The next is "Storehouse for combustibles, \$30,100."

Admiral HOLLYDAY. We now keep them in the general storehouses.

The CHAIRMAN. Would there be just one storehouse for combustibles for the whole yard or would each bureau want one?

Admiral HOLLYDAY. No, this would be the only place in the yard where combustibles would be allowed to be kept.

Mr. LOUDENSLAGER. What do you class as combustibles?

Admiral HOLLYDAY. Oil, and such things.

Mr. LOUDENSLAGER. How much in value do you keep on hand, as a rule?

Admiral HOLLYDAY. I don't know. The Paymaster-General would have to tell you that.

The CHAIRMAN. The next is "Railroad extension, \$15,000."

Admiral HOLLYDAY. That is in the way of economy. We can do the work very much better and more economically by having proper railroad facilities, and it would be a direct saving to the Government to have this appropriation.

The CHAIRMAN. How much did you say you reduced that "Railroad extensions?"

Admiral HOLLYDAY. I have reduced it to \$10,000.

The CHAIRMAN. Can you not reduce it more than that?

Admiral HOLLYDAY. No. If we can not have \$10,000, a smaller appropriation would not help any; we would not want to take any less.

The CHAIRMAN. The next is, "Paving, \$20,000."

Admiral HOLLYDAY. I have cut that out.

The CHAIRMAN. The next is "Cranes for boiler shop numbered 96, \$20,000."

Admiral HOLLYDAY. I have cut that out.

The CHAIRMAN. The next is "Heating system, extension, \$20,000."

Admiral HOLLYDAY. That is to extend the heating plant throughout the yard. That should be left in.

The CHAIRMAN. "Electric plant, extension, \$20,000."

Admiral HOLLYDAY. That is the same thing, taking up the extension to different shops. Twenty thousand dollars. That ought to be left in.

The CHAIRMAN. That is part of the consolidation?

Admiral HOLLYDAY. Yes.

The CHAIRMAN. "Purchase of water supply system, \$170,000."

Admiral HOLLYDAY. In regard to that it has been up before Congress, I suppose, for the last ten years, and I guess the committee knows all about it, and I have not anything to say except we paid last year \$13,000 for water, and that seems to be a pretty good interest on the money that it would take to buy the water supply system. We can buy the plant for \$170,000.

Mr. LOUDENSLAGER. Have you a contract for it?

Admiral HOLLYDAY. No, sir.

Mr. LOUDENSLAGER. How do you know you can buy it for that, then?

Admiral HOLLYDAY. The owners have offered it to us for that.

Mr. LOUDENSLAGER. That was several years ago, was it not?

Admiral HOLLYDAY. Yes.

Mr. LOUDENSLAGER. And since then they have raised their price to \$220,000?

Admiral HOLLYDAY. I don't think so. My information is we can buy it for \$170,000. Under a law passed in the State of Maine last year they could condemn the property, and they have appointed appraisers to set a value on it. They have set a value on it of \$176,000 but they have not consummated the deal.

Mr. TALBOTT. If the Government had a plant they would have to pay the cost of operating it, would they not?

Admiral HOLLYDAY. It is a gravity system, and in case the committee did decide to recommend it, I would recommend that there be a clause put in—you see this water would also be sold to the town of Kittery, and whatever revenue could be obtained from them would be for the purpose of keeping up the plant; the revenues received in that way would be sufficient to keep up the plant. I have drawn up a clause to cover that.

Mr. LOUDENSLAGER. You could not supply those towns without authorization, could you?

Admiral HOLLYDAY. I don't know; probably not.

Mr. MUDD. No, you could not; but the authorization would be simple, and that would be sufficient.

The CHAIRMAN. "Steam main central power plant to steam engineering plant, \$9,000."

Admiral HOLLYDAY. That is to extend the mains of the central power plant over to the new Steam Engineering buildings. They will have to have a heating plant if you do not do that. The item should be authorized by all means.

The CHAIRMAN. The next is "Plumber's shop, improvements to, \$3,300."

Admiral HOLLYDAY. I have cut that out.

The CHAIRMAN. "Improvements to building No. 29, \$4,900."

Admiral HOLLYDAY. You can cut that out.

Mr. LILLEY. What is the object of your spending any more money on the navy-yard at Portsmouth?

Admiral HOLLYDAY. As long as we have a navy-yard there we have to spend money on it.

Mr. LILLEY. But how many battle ships have been docked there in the last ten years?

Admiral HOLLYDAY. No battle ship has ever been docked there.

Mr. LILLEY. What is the object of a navy-yard if you can not get to it with your ships?

Admiral HOLLYDAY. The navy-yard is there. I don't know that I can answer your question.

Mr. LILLEY. Do you think it is good policy for the Government to go on spending millions of dollars on navy-yards that ought to have been abandoned years ago?

Admiral HOLLYDAY. I think we should keep them up so we could do work at them, or abandon them altogether; one or the other.

Mr. LILLEY. Do you not think that four navy-yards, brought to a high state of efficiency, would be enough for the Atlantic coast?

Admiral HOLLYDAY. I do; yes.

Mr. LILLEY. Would it not be good business policy for the Government to quit spending money on those yards that are unapproachable for large vessels and where they do not do any repairs or dock any battle ships?

Admiral HOLLYDAY. If we did not have a navy-yard I would be against establishing one there, but I think as long as we have one there we ought to keep it up so as to be able to do work there. In time of war every navy-yard would be full of work, and as we already have these yards, I think the proper plan would be to divide them in classes; say, first-class navy-yards and second-class navy-yards; and first-class naval stations and second-class naval stations, and then determine what class of work should be done at each one. Then we would have some limit, and when a second-class navy-yard, for instance, would want something that was not properly in line with the requirements for a second-class navy-yard we would not give it to them.

Mr. LILLEY. But you do agree with me, do you not, that four navy-yards brought to a high state of efficiency would be sufficient for the Atlantic coast?

Admiral HOLLYDAY. Amply sufficient.

Mr. LILLEY. We could get along with even less than that, could we not?

Admiral HOLLYDAY. Yes; we could get along, possibly, with three such yards. Four, I would say, would be a safe limit.

Mr. LILLEY. Then all the work that could be done in a first, second, or third class yard, could be done in these three or four yards brought up to a high state of efficiency, and in places where they would be accessible to the largest vessels?

Admiral HOLLYDAY. I do not think there is any doubt about it.

Mr. MUDD. You state that a battle ship has not been into the Portsmouth Navy-Yard; why not? Is it because you have not a sufficient depth of water there?

Admiral HOLLYDAY. We have not had a safe channel for very large ships but we have taken off Hendersons Point. We have just about completed that work, and if a battle ship had to go there it could go there to-day. That work I speak of, taking off Hendersons Point, will probably be completed in the spring.

Mr. MUDD. What is the main difference, the distinguishing difference, between a yard to which battle ships do go, and those to which they do not or can not go?

Admiral HOLLYDAY. I do not quite understand—

Mr. MUDD. I say what is the essential difference in the character of the work done at the navy-yards where battle ships can go and those where they can not go?

Admiral HOLLYDAY. The general line would be that the yard would be provided with very large, heavy facilities for handling very large, heavy work.

Mr. MUDD. What work is done at Portsmouth?

Admiral HOLLYDAY. They have repaired some of the smaller vessels, such as the *Don Juan de Austria*, and vessels of the second-class cruiser type, and they do general repair work. They built a training vessel there, and they are building one there now, I think. Work of that character. They build launches and pulling boats; also machinery and boilers.

Mr. LILLEY. From what I have learned by inquiry among naval officers, I was under the impression that the trouble there was not with the depth of water, but with the bad current.

Admiral HOLLYDAY. That is certainly true. Cutting off Henderson's point will widen the channel to that extent, and it is thought that will make it much easier to navigate.

The CHAIRMAN. We now come to the navy yard at Boston, Mass.

NAVY YARD, BOSTON, MASS.

The CHAIRMAN. The first item is, "Paving, to continue, \$10,000." Do you need all of that this year?

Admiral HOLLYDAY. In cutting down this estimate to the lowest possible limit I have eliminated that entirely.

The CHAIRMAN. The next is, "Railroad rolling stock, \$3,000."

Admiral HOLLYDAY. We need that. That is in the way of economy to allow that.

The CHAIRMAN. The next is, "Telephone system, \$2,000, extension."

Admiral HOLLYDAY. That is in connection with the scheme that I spoke of, that the Department had turned over the telephones to us and we have to fix up the lines, so that we can consolidate the plant.

The CHAIRMAN. The next is, "Repairs to pier No. 8, \$15,000."

Admiral HOLLYDAY. I have cut that out. It would appear that there ought to be repairs, but I have cut it out.

The CHAIRMAN. The next is "Repairs to pier No. 1, \$5,000."

Admiral HOLLYDAY. That I think we can not put off any longer.

The CHAIRMAN. What pier is that?

Admiral HOLLYDAY. That is the pier by dry dock No. 1, and it has deteriorated to such an extent that it must be repaired.

The CHAIRMAN. "Power plant, extensions, \$295,000."

Admiral HOLLYDAY. That is to complete it.

The CHAIRMAN. Will that complete it?

Admiral HOLLYDAY. Yes.

The CHAIRMAN. Can we put in the words "To complete" there?

Admiral HOLLYDAY. We can.

Mr. LOUDENSLAGER. How much has been expended on that central power plant already?

Admiral HOLLYDAY. We have expended \$64,000 (by the acts of June 29, 1906, and March 12, 1907); \$64,000 altogether has been expended.

Mr. LOUDENSLAGER. That would be \$360,000 altogether, then.

The CHAIRMAN. Do you need all this extension this year?

Admiral HOLLYDAY. Yes. If we are to get the economy that we are after it should be authorized, and then we will begin to save. We do not get the money until next year.

The CHAIRMAN. The next is, "Dredging, \$5,000." What about that?

Admiral HOLLYDAY. I have cut that out.

The CHAIRMAN. The next is, "Railroad system, extensions, \$7,000."

Admiral HOLLYDAY. We need that.

The CHAIRMAN. The next is, "Electric Elevator, \$15,000."

Admiral HOLLYDAY. I have cut that out.

The CHAIRMAN. The next is, "Underground conduit system, \$30,800."

Admiral HOLLYDAY. We need that.

Mr. LOUDENSLAGER. What do you carry through that conduit system?

Admiral HOLLYDAY. We carry steam pipes, water pipes, air pipes, and electric cables. We put them all under ground.

Mr. LOUDENSLAGER. Do you know how much has been expended on that conduit system already there in that yard?

Admiral HOLLYDAY. No; I do not.

Mr. LOUDENSLAGER. I wish you would put that in the hearing.

Admiral HOLLYDAY. I will. [After looking it up.] The records show that \$67,500 have been expended. By the act of July 1, 1902, a pipe gallery through the main street was authorized and \$42,500 appropriated. Conduits were authorized by the acts of April 27, 1904, and June 29, 1906, and \$15,000 and \$10,000, respectively, appropriated, making \$67,500 in all.

The CHAIRMAN. The next is, "Water system, extensions, \$2,500."

Admiral HOLLYDAY. We can cut that out.

The CHAIRMAN. The next is, "Rebuilding pier No. 9, \$28,000."

Admiral HOLLYDAY. I have cut that out, although it is needed.

The CHAIRMAN. The next is, "Oil storehouse, additional \$10,000."

Admiral HOLLYDAY. That is a storehouse you appropriated \$15,000 for two years ago. The plans were gotten up and we took bids, but we could not get such a storehouse as the Paymaster-General wanted for oils and combustibles and he said that he would rather not have it built. It was not authorized last year, and we are asking for it again this year. The same reasons could be stated for wanting it as I stated in regard to the one at the Portsmouth Navy-Yard.

Mr. LOUDENSLAGER. Have you any idea how much oil they have on hand at one time?

Admiral HOLLYDAY. No, I have not. The Paymaster-General could tell you that.

Mr. LOUDENSLAGER. You have been around the yards a good deal. What, in your judgment, would be the amount they would have on hand at one time?

Admiral HOLLYDAY. I could not tell.

Mr. LOUDENSLAGER. Would they have three barrels?

Admiral HOLLYDAY. Probably 5,000 barrels.

Mr. LOUDENSLAGER. Five thousand barrels of oil at one time?

Admiral HOLLYDAY. Probably. I ought not to try to answer that question because I really do not know.

Mr. LOUDENSLAGER. My inquiry was to simply get an approximate figure.

Admiral HOLLYDAY. As I said, the Paymaster-General can tell you that.

Mr. LOUDENSLAGER. They tell us that they do not contract for more than they need for a short time. If they use 50,000 barrels of oil in the Boston Navy-Yard for the year they ought not to have more than a thousand barrels on hand at one time. I doubt if they use 50,000 barrels of oil in the Boston Navy-Yard in a year.

Admiral HOLLYDAY. The Paymaster-General can tell you exactly what he carries there.

Mr. LILLEY. Can you buy it any cheaper by buying it in such large quantities?

Admiral HOLLYDAY. Yes, sir. They buy it, and then get it in when needed. You will notice that this is "additional;" \$10,000 is asked. We have already had \$15,000, and that would make \$25,000 altogether.

The CHAIRMAN. The next is the removal of wall and chimney, steam engineering, foundry, building No. 42, \$3,000.

Admiral HOLLYDAY. I have cut that out.

The CHAIRMAN. We next come to the navy-yard, New York.

NAVY-YARD, NEW YORK, N. Y.

The CHAIRMAN. The first item under this is "Electric plant, extensions, \$40,000."

Admiral HOLLYDAY. We need that.

The CHAIRMAN. How much has been spent there on that plant?

Admiral HOLLYDAY. On the electric plant extensions?

The CHAIRMAN. Yes.

Admiral HOLLYDAY. I do not know. At least, I have not those figures here. The electric plant extension is for extending the electric system for the whole yard. Some extension is likely to be asked for each year.

The CHAIRMAN. Please put that in the hearing, if you can.

Admiral HOLLYDAY. The amounts appropriated since the consolidation of plants was authorized by the act of April 27, 1904, are as follows: Act of April 27, 1904, \$20,000; act March 3, 1905, \$10,000; act June 29, 1906, \$50,000; act March 2, 1907, \$25,000. Total, \$105,000.

The CHAIRMAN. The next is "Underground conduits, extension, \$25,000."

Admiral HOLLYDAY. We need that. That is to carry out the consolidation idea.

The CHAIRMAN. Put in what has been spent on conduits, too.

Admiral HOLLYDAY. Yes, sir. Appropriations have been as follows: Act April 27, 1904, \$30,000; act March 3, 1905, \$10,000; June 29, 1906, \$5,000, and act March 2, 1907, \$15,000. Total, \$60,000.

The CHAIRMAN. "Central power plant, \$231,000." Does that complete it?

Admiral HOLLYDAY. That will complete it.

Mr. BUTLER. This is in addition to how much money?

Admiral HOLLYDAY. The plant is to cost complete about \$460,000.

The CHAIRMAN. How much have we spent already?

Admiral HOLLYDAY. At New York, about \$225,000.

Mr. BUTLER. This is to complete it?

Admiral HOLLYDAY. Yes, sir.

Mr. MUDD. I notice last year we used the words, "to complete."

Admiral HOLLYDAY. Yes; I mentioned that a while ago. Those words were put in there inadvertently; they ought not to have been there. There was no estimate based on that amount—no estimate that it could be completed for that amount.

The CHAIRMAN. We can not take two bites to this cherry, one this year and one next, can we?

Admiral HOLLYDAY. I think we had better finish it up. I am cutting out these other necessary things. It is the policy of the committee and the policy of the Department, and I think we ought to get one thing done at least.

The CHAIRMAN. The next is, "Railroad equipment, additional, \$10,000."

Admiral HOLLYDAY. I have cut that down to \$5,000.

The CHAIRMAN. "Sewer and drains, \$15,000."

Admiral HOLLYDAY. That is necessary.

The CHAIRMAN. "Railroad system, extensions, \$30,000."

Admiral HOLLYDAY. I have reduced that to \$15,000.

The CHAIRMAN. "Paving and grading, to continue, \$15,000."

Admiral HOLLYDAY. I have cut that out.

The CHAIRMAN. "Dry dock No. 3, \$20,000."

Admiral HOLLYDAY. I have cut that out.

The CHAIRMAN. "Tools for yards and docks, \$2,000."

Admiral HOLLYDAY. I have cut that out.

The CHAIRMAN. "Repairs to roofs of buildings, \$20,000."

Admiral HOLLYDAY. I have cut that out.

The CHAIRMAN. "Telephone-system extensions, \$12,000."

Admiral HOLLYDAY. I have left that in. That is to carry out the scheme we have been working for, for consolidation.

The CHAIRMAN. "Administration building, \$100,000."

Admiral HOLLYDAY. I have cut that out.

The CHAIRMAN. "Traveling crane track, \$50,000."

Admiral HOLLYDAY. I have cut that out.

The CHAIRMAN. "Extending garbage crematory plant, \$5,000."

Admiral HOLLYDAY. I have cut that out.

The CHAIRMAN. "Reconstructing roof, power house No. 41, \$33,000."

Admiral HOLLYDAY. We need that. There is a wooden roof on the building, and I think we should put on a steel and concrete roof.

The CHAIRMAN. "Surveys and maps of yard improvements, \$8,000."

Admiral HOLLYDAY. I have cut that out.

The CHAIRMAN. "Extending chemical laboratory, \$6,000."

Admiral HOLLYDAY. That is a very necessary thing, and the Paymaster-General told me if I had to cut out everything else he wanted that left in. He had a delegation before him day before yesterday complaining of the time it takes to make tests.

The CHAIRMAN. The next is "Fireproofing girders, building No. 127, \$6,000."

Admiral HOLLYDAY. I have cut that out.

NAVY-YARD, LEAGUE ISLAND, PA.

The CHAIRMAN. "To continue retaining wall about the reserve basin, \$50,000."

Admiral HOLLYDAY. I have cut that out.

The CHAIRMAN. "Water-closet buildings, \$6,000."

Admiral HOLLYDAY. I have cut that out.

The CHAIRMAN. "Shelves and wall cases, etc., for building No. 4, supplies and accounts, storehouse, \$12,000."

Admiral HOLLYDAY. We need that. The general storekeeper has recently taken a building which was given up by the steam engineering department, and we need this money to fix up shelves and other fittings to adapt it to its new use.

The CHAIRMAN. "Repairs to fenders on sea wall of Delaware water front, \$8,000."

Admiral HOLLYDAY. I have cut that out.

The CHAIRMAN. "Repairs to shore ends of piers Nos. 2 and 3, Delaware water front, \$10,000."

Admiral HOLLYDAY. I have cut that out.

The CHAIRMAN. "Grading and paving, to continue, \$25,000."

Admiral HOLLYDAY. I have cut that out, although that is important.

Mr. LILLEY. I think that ought to go in.

The CHAIRMAN. "Sewer system, extensions, \$11,000."

Admiral HOLLYDAY. I have cut that out.

The CHAIRMAN. "Electric elevators, \$8,000."

Admiral HOLLYDAY. I have cut that out.

The CHAIRMAN. "Hydraulic dredge for Department of Yards and Docks, \$125,000."

Admiral HOLLYDAY. I have cut that out.

The CHAIRMAN. "Locomotive crane track, extension, \$35,000."

Admiral HOLLYDAY. I have cut that out.

The CHAIRMAN. "Extension of artesian-water system, \$4,250."

Admiral HOLLYDAY. I have cut that out.

The CHAIRMAN. "Extension, fire-protection system, \$20,000."

Admiral HOLLYDAY. I have cut that out.

The CHAIRMAN. "Electric motors for dry dock No. 1, \$35,000."

Admiral HOLLYDAY. I have cut that out.

The CHAIRMAN. "Central heating system, yards, \$50,000."

Admiral HOLLYDAY. We need that heating system to carry out this scheme of heating the yard from one plant.

The CHAIRMAN. "Extension of electric-conduit system, \$8,000."

Admiral HOLLYDAY. We need that.

The CHAIRMAN. "Central power plant, extension, \$322,500."

Admiral HOLLYDAY. We need that to complete it.

The CHAIRMAN. Will that complete it?

Admiral HOLLYDAY. Yes.

Mr. MUDD. We had better put in "to complete," then.

Mr. BUTLER. How much have we got there at League Island?

Admiral HOLLYDAY. I don't find that anything has been appropriated for central power plant for League Island.

The CHAIRMAN. Can you not use part of that this year and then part next year?

Admiral HOLLYDAY. I think we had better finish it up. We have been dragging on three years, and we can not get the economy we are seeking until we finish it up and get it in operation.

The CHAIRMAN. Consolidation you regard as more important than anything else?

Admiral HOLLYDAY. As long as it has been authorized and we have spent some money, I think we ought to finish it up in order to get the results.

The CHAIRMAN. "Intermediate keel blocks for dry dock No. 2, \$5,675."

Admiral HOLLYDAY. I have cut that out.

The CHAIRMAN. Equipment for railroad, \$5,000.

Admiral HOLLYDAY. We need that.

The CHAIRMAN. The next is "Raising and repairing mess hall at camp, \$5,000."

Admiral HOLLYDAY. That building is very close to the ground. The foundation is beginning to rot, and the whole thing will rot away unless we raise it up, so I think it is very necessary.

The CHAIRMAN. "Intermediate keel blocks for dry dock No. 1, \$9,800."

Admiral HOLLYDAY. I have cut that out.

The CHAIRMAN. "Extension of reserve basin, to continue dredging, \$50,000."

Admiral HOLLYDAY. I have cut that out.

Mr. BUTLER. Would you not continue that reserve basin there?

Admiral HOLLYDAY. We ought to have a reserve basin there, but if I have to cut this estimate, I would cut that out.

The CHAIRMAN. "Dredging and filling, Delaware water front, \$175,000."

Admiral HOLLYDAY. I have cut that out.

The CHAIRMAN. "Sawmill, boat and joiner shop (to cost \$300,000), \$100,000."

Admiral HOLLYDAY. I have cut that out.

NAVY-YARD, WASHINGTON, D. C.

The CHAIRMAN. Coming to the navy-yard, Washington, D. C., the first is "Paving, to extend, \$5,000."

Admiral HOLLYDAY. Cut that out.

Mr. LILLEY. Before we go to that, there was a building burned at League Island last summer. What is going to be done with that situation?

Admiral HOLLYDAY. This \$300,000 is to replace that building.

Mr. LILLEY. In place of the other?

Admiral HOLLYDAY. Yes.

Mr. LILLEY. Then we have not spent any money there for centralizing power?

Admiral HOLLYDAY. That was a joiner shop that burned down.

Mr. LILLEY. I thought this \$300,000 was to complete something. It has not been started yet, then?

Admiral HOLLYDAY. We have put in machinery. They are under a contract for the dry dock, and we got the nucleus of it. We have the building.

The CHAIRMAN. Under the Navy-yard, Washington, you say you can cut out that first item of \$5,000 for paving?

Admiral HOLLYDAY. Yes.

The CHAIRMAN. The next is grading, to extend, \$2,000?

Admiral HOLLYDAY. I have cut that out.

The CHAIRMAN. "Quay wall, to complete, \$25,000."

Admiral HOLLYDAY. I have left that in. That is to complete the work that we are now engaged on, and it will take this amount to complete it, and we should have it now.

The CHAIRMAN. Please put in the hearing how much we have spent on that quay wall?

Admiral HOLLYDAY. I think the act of last year is all we have spent. It is an old wall.

The CHAIRMAN. That was \$25,000 last year?

Admiral HOLLYDAY. Twenty-five thousand dollars last year is all we spent.

The CHAIRMAN. "Storage bins for perishable material, \$6,000?"

Admiral HOLLYDAY. The Paymaster-General represents that as being very important, to keep that stuff together.

The CHAIRMAN. "Purchase of land and change in railroad system, \$300,000."

Admiral HOLLYDAY. In regard to that, the committee probably know that in abolishing the grade crossings it cuts the Washington Navy-Yard off from connection by rail, and the yard could not run without railroad connection. This is to bring in from the north a railroad track and do all the necessary work in connection with bringing that track in. I believe the 17th of March, or some date in March, is fixed as a date when this law goes into effect, and it will cut us off. But I understand that there is a bill that will come up before the District Committee to extend that time to two years, and it is estimated that if we get this money from this Congress we can put in this extension of tracks by the time the two years elapse.

Mr. BUTLER. Then they intend to ask for an extension of the concessions or permits so they will have two years before they tear up the tracks.

Admiral HOLLYDAY. And it will take two years to build this improvement.

Mr. LILLEY. It strikes me that a year or two ago this amount was only \$140,000.

The CHAIRMAN. That was for the purchase of land.

Admiral HOLLYDAY. That was for the purchase of land.

The CHAIRMAN. I wish the members of the committee would go down and look over this proposition. I have looked it over myself.

Mr. LILLEY. This reads for "Purchase of land and change in railroad system, \$300,000." There is no change required after you purchase the land and lay the tracks, is there?

Admiral HOLLYDAY. That is all.

Mr. LILLEY. That is a small matter. They have raised the price of this land from \$140,000 to \$240,000, and next year it will probably be \$1,000,000.

Admiral HOLLYDAY. No; that is to carry out the whole thing. That has been looked into very closely.

Mr. DAWSON. Is this in effect to run a switch from the railroads into the yard?

Admiral HOLLYDAY. Yes; to go down the water front. A great deal of the track will have to be built on trestle along the river.

Mr. DAWSON. Will not the railroads defray a portion of that expense, the expense of putting that switch in there, by reason of the amount of business that they must get from the yard?

Admiral HOLLYDAY. Not unless they are paid it back again. They will not stand any of the expense.

Mr. LILLEY. Can we not build a trestle in the water outside of this land? I understand they are asking for this land almost as much per front foot as it is worth per acre. Can we not get off into the water and build a trestle with a track on it?

Admiral HOLLYDAY. I don't think that would be allowed. My estimate for that is, for the acquisition of squares 955 and 979, \$161,872; right of way south of square No. 1067, \$15,000; right of way south of square 1001, \$16,000; building spur, \$85,600; building road in yard, changing switches, etc., \$11,147; surveying work, maps, plans, etc., \$2,000; inspection and miscellaneous work, \$8,381; total, \$300,000. It has been up before the committee before. I received a letter yesterday from Mr. Joseph I. Weller, attorney and counselor at law, No. 602 F street NW., which I would like to submit.

The CHAIRMAN. You may submit that.

Admiral HOLLYDAY. It strikes me as being a very good letter, and I would like to read it. The letter is as follows:

JOSEPH I. WELLER,
ATTORNEY AND COUNSELOR AT LAW,
Washington, D. C., January 15, 1908.

Admiral RICHARD C. HOLLYDAY, U. S. Navy,
*Chief of Bureau of Yards and Docks,
Department of the Navy, City.*

SIR: From the book of Hearings before the Committee on Naval Affairs of the House of Representatives, 1906-1907, when considering the estimates submitted by your Department last year, it would seem that this committee had the wrong impression concerning the purchase of ground to the east of the Washington Navy-Yard in order to give a new railroad connection to said yard, made necessary by the law now in force compelling the abandonment of the present grade tracks now in use by the navy-yard on the west. It will be readily seen by a perusal of said book of Hearings on this subject, as well as by much correspondence had with the Department and the data on this subject held by you, that this is not a case where some real estate men have bought up property in advance of legislation to purchase by the Government, but this property was acquired by the present owners a number of years ago when it was under water, with the intention of filling to grade said squares and then erecting on the wharf line suitable wharves to be used in part for their own business and in part for lease purposes. There is now a demand for such property and same brings a good rental return; especially is this true in this city where there is very little of such property which has, as in this case, undisputed water rights and owned by individuals.

Square 955 was finished as to filling and grading some time ago, and the owners had plans drawn for building wharves on this square and part of square 979 last year and purchased a large amount of piles for this purpose, a good quantity of them being delivered to the property, where they still remain.

The owners did not start the work at that time for the reason that the Department stated that this ground was needed not only for the new railroad connection, but the Navy Department was very anxious to acquire same for the water front it possessed so as to give additional berthing space for the navy-yard, and that Department had recommended its purchase several times and would not care to have the cost of the property increased to the Department by improvements made by the owners of wharves that would most probably be of no use to the navy-yard.

Again, I wish to call your attention to the fact that the initiative in the matter of purchase of this property has always been on the part of the Department and not by the owners.

Last year the Naval Committee had much to say about the price of this property being excessive. If they are still of that opinion after the facts submitted last year as to values, then let them order the property condemned, as is the custom in this city when the Government is not satisfied with the price at which property can be purchased at private sale. While on this subject of price let us have in mind that these squares have a large water frontage of 468 square feet (the navy-yard after purchase would close Ninth and Tenth streets south of O street, which would give an additional water frontage of 170 feet, a total of 638 feet on water); that most of such property in this city is owned by the Government and only leased to private parties, and the only other property owned by individuals on the water frontage with undisputed riparian rights, except possibly a few squares on the Eastern Branch of the Potomac River, is in in Georgetown, or west Washington, not as well located as to haul and certainty of depth of water, and this property is selling for twice the amount per square foot as the Department proposes to pay for squares 955 and 979.

I respectfully submit that the owners of said property should be placed in the proper light. I do not own the property, only represent them. They have been patient, and I believe you will say, extremely courteous in their treatment of your Department, when it is considered that they have been kept out of the use of their property, which means a great financial loss as long as the purchase rests as it has for the last few years, and they have made no demand on you for an increased price to cover this loss, which would be entirely proper since the property has been submitted at a fair price. Again, there is positively no chance of taking advantage of the Government for the reason that you have dealt in the matter of securing options for the purchase of the property direct with the owners.

There has been no reason for criticism that the property was purchased to take advantage of the Department on account of the "elimination of grade crossing railroad law," as the property was acquired years before the passage of said act.

I have gone somewhat fully into this matter for the reason that the owners of said squares feel that they have given as much opportunity to the Department to purchase this property at a fair price as could be expected, and should Congress see fit to appropriate at this session sufficient to acquire this property no improvements will be made; otherwise it will be improved and advantage taken of its excellent water frontage.

Yours, very respectfully,

JOSEPH I. WELLER.

Mr. MUDD. I see that that is for right of way in front of lots so and so. What is the character of the land; is it actual land, or is it really water there?

Admiral HOLLYDAY. It has been filled in along there, and it belongs to individual owners.

Mr. MUDD. Is it filled in out into the river?

Admiral HOLLYDAY. We have a harbor commissioner's line. That was all formerly marsh land.

Mr. MUDD. I do not quite see how private parties can own that land, that property along there.

Admiral HOLLYDAY. It is stated in the letter from Mr. Weller. This is not a case where men have bought up the property in advance of legislation hoping to sell it at a big advance to the Government, but this property was acquired a number of years ago, when it was under water, with the intention of the purchasers filling in and grading the land and using it for business purposes. It seems there is now a demand for such land. As I have said, the navy-yard will be practically closed up unless some provision is made for these tracks. The Commissioners have said they would not recommend any bill to allow these grade crossings to remain as at present. They have said they would not approve any measure providing that they should continue the way they are now. That was put to them and they said they would not allow it. If they would allow that we would not ask a cent for this improvement, and we would give you back the \$40,000 you appropriated for a bridge.

The CHAIRMAN. I wish Mr. Lilley, Mr. Padgett, and Mr. Dawson would look into this matter and report on it.

Mr. MUDD. You say you think this is necessary?

Admiral HOLLYDAY. If the Commissioners would recommend that these grade crossings be allowed, then we would not want this money; we would rather have the track the way it is.

The CHAIRMAN. Going to the next item in the bill, "Latrines, additional, \$1,000."

Admiral HOLLYDAY. I have cut that out. In regard to the Washington Navy-Yard, I have cut everything out that I could, but have assumed that the \$300,000 would go in.

The CHAIRMAN. The next is "Locomotive and locomotive crane house, \$61,747."

Admiral HOLLYDAY. I have cut that out.

The CHAIRMAN. The next is "New foundry (to cost \$300,000), \$100,000."

Admiral HOLLYDAY. I have cut that out.

The CHAIRMAN. "Tools and machinery for Yards and Docks department, \$5,000."

Admiral HOLLYDAY. I have cut that out.

Mr. MUDD. I did not hear what he said as to the foundry.

Admiral HOLLYDAY. I have cut that out.

The CHAIRMAN. The next is "Fireproof general storehouse for Supplies and Accounts, \$290,000."

Admiral HOLLYDAY. I have cut that out.

The CHAIRMAN. "Raising floor in north end of storehouse for gun mounts, \$7,000."

Admiral HOLLYDAY. I have cut that out.

The CHAIRMAN. "New floors in north and south gun shops, east and west gun carriage and other shops, \$25,000."

Admiral HOLLYDAY. I have cut that out.

The CHAIRMAN. "Quay walls in front of old part of yard, \$85,800."

Admiral HOLLYDAY. I have cut that out.

The CHAIRMAN. "Gravity return-drainage system, \$3,500."

Admiral HOLLYDAY. I have cut that out.

The CHAIRMAN. "Rewiring certain yard buildings, \$21,500."

Admiral HOLLYDAY. I have cut that out.

The CHAIRMAN. Have you cut all those out?

Mr. MUDD. Had he better not tell us what he leaves in?

Admiral HOLLYDAY. I have left in storage bins, purchase of land; quay wall, to complete, \$25,000; machinery for power-plant extension, \$12,000; electric-light plant, extension, \$5,000. That makes, together with the \$300,000, \$348,000. I have cut all those things out on the assumption that you are going to authorize the expenditure for this railroad proposition, \$300,000. If I had cut that out, I would have put in other things.

The CHAIRMAN. What do you regard as the most important things, next to that?

Admiral HOLLYDAY. Well, I should say the foundry.

The CHAIRMAN. And what next?

Admiral HOLLYDAY. Rewiring certain buildings, \$21,500. The wiring is worn out. It has been in there a long time, and it all has to be done over again.

The CHAIRMAN. What next?

Admiral HOLLYDAY. Next in importance, raising floor on the north end of storehouse for guns and mounts, \$7,000. Next, underground

conduit system, to extend, \$10,000. On that basis it would be \$86,000, aside from the \$300,000.

The CHAIRMAN. Please enumerate those items, so we may get them. Quay wall, \$25,000?

Admiral HOLLYDAY. Yes; quay wall, \$25,000.

The CHAIRMAN. What next?

Admiral HOLLYDAY. Storage bins, \$6,000. Raising floor in north end of storehouse for guns and mounts, \$7,000. Rewiring certain buildings, \$21,000. Machinery for power-plant extension, \$12,000. Underground conduit system, to extend, \$10,000. Electric-light plant extension, \$5,000.

Mr. BUTLER. These that you are giving now are the most important?

Admiral HOLLYDAY. I would regard these, after the foundry, as the most important, taking out the question of the land and the railroad system. Then I would regard these that I have just given as the most important. The amount is \$86,000.

NAVY-YARD, CHARLESTON, S. C.

The CHAIRMAN. Coming to the navy-yard, Charleston, S. C., the first is "Grading and paving, to continue, \$10,000."

Admiral HOLLYDAY. I have cut that out.

The CHAIRMAN. "Railroad extension, \$10,000."

Admiral HOLLYDAY. I would leave that in; \$10,000 for that: yes.

The CHAIRMAN. "Dredging, to continue, \$50,000."

Admiral HOLLYDAY. I have cut that out.

The CHAIRMAN. "Sewer system, extension, \$5,000."

Admiral HOLLYDAY. That is necessary.

The CHAIRMAN. "Railroad equipment, \$5,000."

Admiral HOLLYDAY. That is necessary.

The CHAIRMAN. "Quay wall, to continue, \$50,000."

Admiral HOLLYDAY. I have cut that out.

The CHAIRMAN. "Heating system, extensions, \$10,000."

Admiral HOLLYDAY. That is necessary.

The CHAIRMAN. "Electric system, extensions, \$20,000."

Admiral HOLLYDAY. I have cut it down to \$10,000.

The CHAIRMAN. "Two officers' quarters, \$20,000."

Admiral HOLLYDAY. I have cut that out.

The CHAIRMAN. "Lavatory, laundry, and latrines, \$10,000."

Admiral HOLLYDAY. I have cut that out.

The CHAIRMAN. "Completing power plant, \$70,000."

Admiral HOLLYDAY. That is necessary.

The CHAIRMAN. "Storehouse for oil, \$25,000."

Admiral HOLLYDAY. I have cut that out.

The CHAIRMAN. "Cement storage shed, \$7,500."

Admiral HOLLYDAY. I have cut that out.

The CHAIRMAN. "Scale house and scales, \$8,000."

Admiral HOLLYDAY. I have cut that out.

The CHAIRMAN. "Pneumatic system, extension, \$5,000."

Admiral HOLLYDAY. That is necessary.

The CHAIRMAN. "Clearing yard, \$5,000."

Admiral HOLLYDAY. I think that should go in. They have a very large tract of land there and there is a fire risk if it is not cleared up, and I think it should be cleaned up. It is magnificent property.

The CHAIRMAN. "Water system, extension, \$5,000."

Admiral HOLLYDAY. I have cut that out.

The CHAIRMAN. "Fire-protection system, \$38,000."

Admiral HOLLYDAY. I have cut that out.

The CHAIRMAN. "Elevator and interior fittings, building No. 7, \$17,000."

Admiral HOLLYDAY. We need that to get the full use of the storehouse put up there.

The CHAIRMAN. "Crane-track extension, \$32,000."

Admiral HOLLYDAY. I have cut that out.

The CHAIRMAN. That makes how much?

Admiral HOLLYDAY. That makes \$137,000.

Mr. LILLEY. Do you think it was good policy to have started this yard at Charleston, in view of the fact that we had three yards that would do all the business for the Atlantic coast?

Admiral HOLLYDAY. Well, I don't know about that.

The CHAIRMAN. It is started, is it not?

Admiral HOLLYDAY. It certainly is started. It is one of the best yards we have got, with a comparatively few additional facilities.

Mr. LILLEY. For what purpose?

Admiral HOLLYDAY. With a few additional facilities, it will be good for any purpose.

Mr. LILLEY. Do you have any vessels of the type of the *Delaware* that will ever dock there?

Admiral HOLLYDAY. There is no reason why they should not with a comparatively small amount of dredging.

Mr. LILLEY. How are they going to get in from the outer harbor?

Admiral HOLLYDAY. There is plenty of water, I think.

Mr. LILLEY. They do not claim but 27 feet, do they?

Admiral HOLLYDAY. I thought it was 30 feet.

Mr. LILLEY. Only one battle ship has ever got in and got out again.

Admiral HOLLYDAY. Yes; but if one can go in and get out, others can, too.

Mr. LILLEY. Winslow went in there, and when he went out all the people on the shore watched him, and he was very glad to get out without injury.

Admiral HOLLYDAY. That was a cruiser, not a battle ship.

Mr. LILLEY. Then there never has been a battle ship to go in there?

Admiral HOLLYDAY. Yes, I think so.

Mr. LILLEY. Suppose you get this \$400,000 that is proposed to be spent at Charleston, would you not rather spend it somewhere where there was plenty of water, like League Island or Boston? Would you not rather do that, if it was your own business you were looking out for?

Admiral HOLLYDAY. I would certainly take into consideration the fact that I have an investment there already of several million dollars.

Mr. LILLEY. But if it was your own private business, would you maintain yards at Boston, New York, Portsmouth, Norfolk, Washington, Key West, Port Royal, Pensacola, Charleston, New Orleans, and Mare Island? Would you maintain those yards if it were your own private business you were looking out for?

Admiral HOLLYDAY. All of them, or any of them?

Mr. LILLEY. All of them.

Admiral HOLLYDAY. I would not.

Mr. LILLEY. Would you not concentrate those in as few yards as possible and do all your work in those few yards?

Admiral HOLLYDAY. I certainly would.

Mr. LILLEY. What is the use of conducting the Government's business any different from the way a man's private business should be conducted? I would be in favor of giving every dollar you ask for to three yards and cut off all the rest.

Admiral HOLLYDAY. I wish we had but three or four yards on the Atlantic coast.

Mr. LILLEY. The mere fact that you have already spent a lot of money on them is no reason why we should spend more, especially when we are building bigger and bigger ships all the time. When we were building wooden frigates those yards were all right, but in view of the fact that we are doubling up all the time, it is very evident to any man that the time is right in front of us, if it has not already arrived, when five or six of these yards that we have might just as well be located out here at Hyattsville or Chevy Chase, so far as getting any of our ships to them is concerned.

Mr. THOMAS. What is the argument in favor of the yard at Charleston?

Admiral HOLLYDAY. The most important point in favor of Charleston is that there is a long coast line from Norfolk to the Gulf of Mexico and that is the only yard we have on all that coast until we get around to Key West and the Gulf of Mexico. That is the chief argument I have heard in favor of the establishment of the Navy Yard at Charleston. We have spent a whole lot of money there, and in many respects it has some of the best facilities that we have anywhere. Money has been spent there—

Mr. THOMAS. It was misspent, though, as a business proposition, was it not?

Admiral HOLLYDAY. I would not like to criticize Congress, but I think that that same remark would apply to a great many other yards as well as to Charleston.

Mr. LILLEY. The reason you do not say the money has been misspent is because you would not like to criticize Congress, is it?

Admiral HOLLYDAY. I certainly do not like to criticize Congress.

Mr. LILLEY. Right down in your heart you know you would not have spent the money there if it had been your own private business?

Admiral HOLLYDAY. I am not in favor of all these yards, although the Navy is not just the same as a commercial proposition.

Mr. LILLEY. I don't see any difference. It ought to be run on the same business principles.

Mr. THOMAS. If a navy-yard is not well located it ought to be abandoned. There is no reason why it should be maintained just because money has been spent on it. Take, for instance, the United States Steel Corporation. They are abandoning plants continually, almost monthly; they are centralizing, concentrating, tearing down rather modern plants, too. Now, then, if there have been millions of dollars spent at Charleston and it is not a good location for a navy-yard, there is no reason why we should continue spending more money there, is there?

The CHAIRMAN. Please put in your statement how much we have spent at Charleston.

Admiral HOLLYDAY. Very well. [After looking it up.] Yards and Docks has expended \$2,447,489.49 to date.

NAVY-YARD, NORFOLK, VA.

The CHAIRMAN. The next is navy-yard, Norfolk. Va. "Paving and grading, additional, \$15,000."

Admiral HOLLYDAY. I have cut that out.

The CHAIRMAN. Railroad tracks, extensions, \$25,000.

Admiral HOLLYDAY. I have cut that down to \$15,000.

The CHAIRMAN. Telephone system, extension, \$7,000.

Admiral HOLLYDAY. I have got that in; I have left that. That is for the same reason as the others.

The CHAIRMAN. It is on the consolidation idea?

Admiral HOLLYDAY. Yes.

The CHAIRMAN. Electric-light plant, \$50,000.

Admiral HOLLYDAY. We need that.

The CHAIRMAN. Can we reduce that this year at all?

Admiral HOLLYDAY. I would not recommend it, no.

The CHAIRMAN. The next is "Central power plant, to continue, \$200,000."

Admiral HOLLYDAY. We need that.

The CHAIRMAN. Will that complete it?

Admiral HOLLYDAY. Yes.

The CHAIRMAN. Then we will put in "to complete?"

Admiral HOLLYDAY. Yes.

Mr. MUDD. It reads "Central power plant, to continue."

The CHAIRMAN. It should read "to complete."

Mr. THOMAS. Is the electric light plant in the power plant; why should you have two plants?

Admiral HOLLYDAY. Everything will be in one plant.

Mr. BUTLER. That is now your programme?

Admiral HOLLYDAY. Yes; that was authorized by Congress three years ago, and they have never appropriated the money to carry it out.

The CHAIRMAN. Dredging.

Admiral HOLLYDAY. I have cut that to \$50,000. We have a new dry dock which is completed, but the pumping plant is not, and we will have to have \$200,000 there, but \$50,000 will answer the purpose this year.

Mr. MUDD. What is the purpose of that?

Admiral HOLLYDAY. So we can get into the dry dock. The river and harbor bill was expressly worded so we could not do any dredging under the provisions of that bill. I understand that that committee provides for channels for commercial uses, and when it comes to the Navy we have to provide for the work we need in the naval appropriation bill. As I say, that is expressly stated, so we will not be able to get any work done under the river and harbor bill.

The CHAIRMAN. Now, go ahead. The next is "Improvements to water front, \$150,000." Do you want that?

Admiral HOLLYDAY. I am going to read what I have recommended as necessary this year. The extension of wharf at dry dock No. 3,

\$50,000. That is at the new dry dock. That is necessary. Central power plant, to continue, \$200,000. Telephone system——

The CHAIRMAN. Let us get that down; give us those items.

Admiral HOLLYDAY. Telephone, extension, \$7,000; heating system, extension, \$10,000; compressed-air system, extension, \$10,000; electric plant, extension, \$50,000; dry kilns, construction and repair department, \$7,500; renewing roof of foundry, building No. 22, steam engineering, \$8,000; new roof and crane for building No. 23, steam engineering, \$60,000.

The CHAIRMAN. Why is that; do you regard that as important?

Admiral HOLLYDAY. Yes; that is for improving that steam engineering plant and getting it in good shape.

The CHAIRMAN. Is that near the dry dock?

Admiral HOLLYDAY. That is near dry dock No. 3.

The CHAIRMAN. And what else?

Admiral HOLLYDAY. Elevator in buildings No. 11, 13, 14, 17, and 33, \$20,000.

Mr. THOMAS. Just a moment there, please. Why a new roof?

Admiral HOLLYDAY. Because the old one has gone to pieces. It is a wooden roof, and we want to put a steel and concrete roof.

Mr. THOMAS. It is because it is too low, as I understand, and you want that so you can put a crane there. I remember it needs a crane very badly.

Admiral HOLLYDAY. That may be so also; yes, sir. As I have said, we want \$20,000 for elevators in buildings No. 11, 13, 14, 17, and 33. Naval supply storehouse to cost \$450,000, \$50,000.

Mr. MUDD. What have they got there for that now?

Admiral HOLLYDAY. A lot of miserable shacks, like almost everything they have at the Norfolk navy-yard. That is one of our most important yards, and yet the buildings there are not up to the standard. A lot of those buildings were built during the civil war and there ought to be a lot of money spent there for repairs and for new buildings. The yard ought to be rebuilt like the Boston yard is.

Mr. LILLEY. Admiral Rogers thought he could reduce the supplies there so they would have room enough without any new storehouses.

Admiral HOLLYDAY. A number of these buildings should be razed to the ground.

Mr. THOMAS. Was there not a fire there?

Admiral HOLLYDAY. I don't recall any fire there lately. The buildings are in very bad shape there and the yard needs rebuilding. As you have said, he does expect to reduce his supplies very much, and he wants a building there of this character. At present we use the buildings 11, 13, 14, 17, and 33 until we have a new building, and then they will be torn down.

The CHAIRMAN. What kind of buildings are those?

Admiral HOLLYDAY. Storehouses.

Mr. THOMAS. Improvements to building No. 16, to complete. What is that building?

Admiral HOLLYDAY. I think that is a C. & R. building.

The CHAIRMAN. Construction and repair.

Admiral HOLLYDAY. Yes, I think so. [After looking at memorandum.] No, it is a storehouse. At present, as the wooden floor in building No. 16 is not strong enough to permit it to be used to its

capacity as a storehouse, an estimate is submitted for renewing the the second floor in steel and concrete, and to properly equip the building for use as a storehouse.

The CHAIRMAN. What is the next?

Admiral HOLLYDAY. The next is "Heating building 37, steam engineering, \$7,500." That is to do away with the heating plant. We will get it heated from the central plant. That is all for Norfolk. The total cost is \$580,000.

NAVAL STATION, KEY WEST, FLA.

The CHAIRMAN. What have you at the Naval Station, Key West, Fla.?

Admiral HOLLYDAY. Nothing.

The CHAIRMAN. Nothing for Key West?

Admiral HOLLYDAY. I want to say in that connection that in order to reduce this estimate down to the lowest point I have not submitted any estimate for any foreign station except Guam. Guam is not exactly a naval station in the usual sense of the word, but it is under the Department of the Navy, and the poor devils out there will starve to death unless the Navy looks out for them.

NAVY-YARD, MARE ISLAND, CAL.

The CHAIRMAN. Coming to the Mare Island Navy-Yard, what do you need there?

Admiral HOLLYDAY. Grading and paving extensions, \$15,000.

Mr. BUTLER. As I understand it, these items you are giving us are the items you urge Congress to appropriate?

Admiral HOLLYDAY. Those that I consider the most necessary.

Mr. MUDD. Do you not think the other method is really better—take up each item and say whether or not it is necessary?

The CHAIRMAN. You will find all these estimates referred to in his report.

Admiral HOLLYDAY. There is a written statement for every item. In regard to the grading and paving at Mare Island, there is a photograph of the street that I want to have paved [exhibiting photograph to the committee]. That is a picture that I want you to look at, showing a working street, a street in which work is done in that yard. I want to have that paved.

The CHAIRMAN. Where is that item? "Grading and paving;" do you find it anywhere?

Admiral HOLLYDAY. It ought to be the top one, the first item.

The CHAIRMAN. It is not.

Mr. BUTLER. I do not see any grading and paving provided for in here at all.

The CHAIRMAN. The item first appearing here is railroad system extension.

Admiral HOLLYDAY. That must have been omitted.

The CHAIRMAN. We will put in "Grading and paving extension."

Admiral HOLLYDAY. \$15,000. I cut it down from \$25,000.

The CHAIRMAN. What else is there?

Admiral HOLLYDAY. Railway extension, \$10,000.

The CHAIRMAN. What next?

Admiral HOLLYDAY. Telephone system extension, \$2,000.

The CHAIRMAN. What else?

Admiral HOLLYDAY. New elevators in buildings 69 and 71, \$4,000.

The CHAIRMAN. Page 102, the second line, \$4,000. What next?

Admiral HOLLYDAY. Dredging, \$10,000.

Mr. MUDD. What depth of water have they there?

Admiral HOLLYDAY. Over the bar the shallowest water is 21 feet at mean low water. Then we get more up in the channel.

Mr. LILLEY. What good is more in the channel if we can not get over the bar?

Admiral HOLLYDAY. Well, at high water we can get over that bar better than that. There is a good deal more water than 20 or 21 feet there at high water.

Mr. LILLEY. Do you think Mare Island is a good location for a navy-yard?

Admiral HOLLYDAY. The Secretary in his report here in regard to Mare Island expresses my views. He recommends that a commission be appointed to determine whether the proper amount of water can be gotten there, and to report to the next Congress.

Mr. LILLEY. There was a commission appointed in 1897, was there not—the Bunce Commission?

Admiral HOLLYDAY. I never heard of it.

Mr. LILLEY. We have here Admiral Endicott's report made in 1898 advocating the abandonment of the navy-yard at Mare Island.

Admiral HOLLYDAY. I do not recall that.

Mr. LILLEY. There was such a report.

Admiral HOLLYDAY. The Bunce Commission was on the Atlantic coast, but it did not go out on the Pacific coast.

Mr. MUDD. To finish my question, what did you say was the general depth of water outside the bar?

Admiral HOLLYDAY. Over the bar I said 20 or 21 feet, and inside the bar about 24 or 25 feet of water or more.

Mr. LILLEY. What will the *Delaware* draw?

Admiral HOLLYDAY. I think about 27 feet.

Mr. LILLEY. What do the small third-class battle ships such as the *Oregon* draw?

Admiral HOLLYDAY. About 24 feet, I think.

Mr. THOMAS. Do you mean to say you can not get these ships into this navy-yard?

Admiral HOLLYDAY. I doubt if the battle ships could go there. The *Charleston*, drawing about 26 feet of water, has been there. She was there last year, but under present conditions I doubt if any battle ship could go in there, unless it was an absolute necessity. If absolutely necessary in time of war, I have no doubt they would go there.

Mr. DAWSON. One of the ablest admirals in the entire naval service made the statement last year that no officer would take a battle ship into the Mare Island navy-yard unless under positive orders to do so.

Admiral HOLLYDAY. That may be so.

Mr. THOMAS. Will this dredging, provided for in this item, make it so that you can get battle ships in there?

Admiral HOLLYDAY. Oh, no; that is just the incidental dredging for this year, until this Commission can report and get something

definite. When I was at Mare Island in 1897 they were then talking about the abandonment of the navy-yard there, and they have been talking about it ever since, and no definite step has been taken. I was out there in November, and as I have said, there are more men employed there now than there ever have been before.

Mr. LILLEY. What are they doing?

Admiral HOLLYDAY. They are doing work that is properly done in a navy-yard. New York, Norfolk, and Mare Island have been the three working yards of this country from the beginning.

Mr. LILLEY. Is that not due to the fact that there was no other place on the Pacific coast.

Admiral HOLLYDAY. Yes; that is true, so far as the Pacific coast is concerned.

Mr. LILLEY. If there was another navy-yard out there, for instance, at Bremerton—

Admiral HOLLYDAY. I think you ought to have two navy-yards on the Pacific coast.

Mr. LILLEY. But would you not abandon the navy-yard at Mare Island and appropriate everything that we do appropriate for the Pacific coast for the navy-yard on Puget Sound?

Admiral HOLLYDAY. Not until I get that report that I have referred to.

Mr. LILLEY. Would you not abandon the navy-yard at Mare Island and build one—spend your money on one where there is plenty of water?

Admiral HOLLYDAY. I would wait for that report.

Mr. LILLEY. Do you think an inland town is a good place for a navy-yard?

Admiral HOLLYDAY. I think Mare Island is a magnificent place if we had plenty of water there.

Mr. LILLEY. But is it a good place to build a navy-yard where there is not water?

Admiral HOLLYDAY. But we have the navy-yard there already. I say take the advice of the commission which the Secretary recommends be appointed and let us find out whether we can get the water there.

Mr. LILLEY. We have had expert advice about that for many years.

The CHAIRMAN. Let us pass on.

Admiral HOLLYDAY. My estimate is \$496,000. Grading and paving, extension, \$15,000. Railway system, extension, \$10,000.

The CHAIRMAN. You have been over this.

Admiral HOLLYDAY. Yes; very thoroughly. Telephone system, extension, \$2,000. New elevators in buildings Nos. 69 and 71, \$4,000.

The CHAIRMAN. What are those—storage buildings?

Admiral HOLLYDAY. Yes, sir. Dredging, \$10,000. Improvements in channel of Mare Island Strait, \$20,000. That is to finish up the dikes. Central power plant, \$385,000. Key wall, extension, \$50,000. Total, \$496,000.

Mr. MUDD. That is for what?

Admiral HOLLYDAY. For Mare Island.

Mr. MUDD. Do you think we ought to spend this money while we are examining the feasibility of abandoning the yard?

Admiral HOLLYDAY. I think we can use that money to advantage even if we can not get the big battle ships up there.

Mr. LILLEY. Is that as near a straight answer as you want to give to Mr. Mudd's question; do you think it advisable to spend nearly half a million dollars on a navy-yard when a commission is investigating and about to advise whether it ought to be continued or not?

Admiral HOLLYDAY. If the commission reports that it is not possible to get water sufficient for battle ships to go up there, then my idea would be to find some place inside of the Golden Gate to build dry docks large enough for the largest battle ships and to put a plant there only for the very heaviest work—one or two shops. It would be an inexpensive plant, aside from the dry-dock equipment, and still have the manufacturing done at the Mare Island Navy-Yard. That would be my opinion.

Mr. THOMAS. You say to do heavy work, and still let it be an inexpensive plant?

Admiral HOLLYDAY. Yes. What I mean by that is that two or three shops would cost us probably \$900,000, instead of what a first-class navy-yard would cost. A first-class navy-yard would cost fifteen or twenty million dollars.

Mr. THOMAS. You mean comparatively inexpensive? You speak of \$900,000, and of course that is comparatively inexpensive when talking about expenditures for the Navy.

Admiral HOLLYDAY. Yes. You see we have a fine plant there at Mare Island. We have not anywhere else as good a climate to work in as we have there.

Mr. LILLEY. Would not the climate be just as good five miles or twenty miles away from there?

Admiral HOLLYDAY. No. The climate is very much better at Mare Island than it is in San Francisco.

Mr. LILLEY. Well, it is a good climate in Arizona, but it is not a very good place to build a navy-yard.

Mr. THOMAS. I would like to ask the Admiral this question. Do you know where the Union Iron Works are located?

Admiral HOLLYDAY. Yes; I know.

Mr. THOMAS. Are they well located for their purposes?

Admiral HOLLYDAY. I imagine they are pretty badly cramped for room along their water front.

Mr. THOMAS. Are they better located than the Mare Island Navy-Yard is located?

Mr. BUTLER. As to water?

Admiral HOLLYDAY. I think so; yes.

The CHAIRMAN. Let us pass on to the next subject.

NAVY YARD, PUGET SOUND, WASHINGTON.

The CHAIRMAN. The first item under Navy-Yard, Puget Sound, Washington, is to continue grading, \$20,000.

Admiral HOLLYDAY. I have cut that out.

The CHAIRMAN. The next is electric-light plant, extensions, \$5,000.

Admiral HOLLYDAY. I think that is necessary.

The CHAIRMAN. The next is water system, \$12,000.

Admiral HOLLYDAY. I have cut that out.

The CHAIRMAN. Heating system, \$6,000.

Admiral HOLLYDAY. I have left that in. That is necessary.

The CHAIRMAN. Roads and walks, extension, \$10,000.

Admiral HOLLYDAY. I have cut that out.

The CHAIRMAN. Stone and concrete dry docks (to cost \$2,000,000), \$100,000.

Admiral HOLLYDAY. Yes; I have that.

The CHAIRMAN. This is to continue, is it?

Admiral HOLLYDAY. Yes, sir.

The CHAIRMAN. Last year we authorized a dock for \$100,000.

Mr. BUTLER. Have you any knowledge relative to the amount of work that has been done on that dry dock?

Admiral HOLLYDAY. Yes; we asked for bids last August, and we did not get a bid within the appropriation, and we rejected all the bids, and we are now asking for an increase of \$750,000.

Mr. MUDD. Where is that?

Admiral HOLLYDAY. At Bremerton.

Mr. BUTLER. What depth of water is there there at Bremerton?

Admiral HOLLYDAY. Seven or eight fathoms in the bay there. Everywhere else it is too deep.

Mr. BUTLER. Is it one of those points where you could operate a floating dry dock?

Admiral HOLLYDAY. No; not in the harbor. There is not enough depth in the harbor for a floating dry dock. Of course you could make the depth there.

The CHAIRMAN. Why does this dock cost so much more than we thought it was going to cost; are you making a larger dock of it?

Admiral HOLLYDAY. Yes; but even with the dock we planned we could not build it within the appropriation made.

The CHAIRMAN. On account of the high price of material?

Admiral HOLLYDAY. Yes; and also because we can not get the kind of dock we want for the amount of money appropriated.

Mr. LILLEY. That will be cheaper this coming year. You could buy it within the appropriation this coming year.

Mr. MUDD. Is there any contract made for this dry dock?

Admiral HOLLYDAY. No; we rejected all bids and are asking for an increase of \$750,000.

Mr. MUDD. I thought you said that that was Bremerton?

Admiral HOLLYDAY. It is Bremerton. Puget Sound is the right name of it.

Mr. MUDD. Is there any use, then, for us to give you this appropriation to cost \$2,000,000 if you can not build it within the limitation?

Admiral HOLLYDAY. The limitation at present is \$1,250,000.

Mr. MUDD. There is nothing in here to raise this.

Admiral HOLLYDAY. Yes, there is.

The CHAIRMAN. "To cost \$2,000,000."

Mr. MUDD. What was the limitation last year?

Admiral HOLLYDAY. One million dollars and a quarter.

Mr. DAWSON. Is it necessary to put in that limitation of cost there?

Admiral HOLLYDAY. Yes. Under the present wording we can not build a dock to cost over \$1,250,000. That is the reason why we can not go ahead this year.

The CHAIRMAN. Find out just what the situation is—whether we can reduce this limit of \$2,000,000.

Admiral HOLLYDAY. I have looked into the thing thoroughly I have a memorandum prepared here.

The CHAIRMAN. I wish you would put it in the hearing.

Admiral HOLLYDAY. I will be glad to put it in the hearing.

The memorandum is as follows:

DRY DOCK NO. 2, PUGET SOUND.

1. Bids were opened on July 27, 1907, specification 1542, for masonry work for a dock 727 feet long from the outer end of the apron to the outside of the coping at the head. The dock was designed to take a ship 660 feet long with the necessary clearances and 100-foot beam. Depth over blocks: Mean high water, 35 feet 6 inches, mean low water, 24 feet 6 inches. Top of blocks, 2 feet 6 inches above sill. These upper blocks could be removed in case of emergency and increase the draft of the ship that could be docked. The dock was without granite lining, but concrete block facing for the sides was provided.

2. Five bids were received, ranging from \$1,764,000 to \$1,217,000. The average of all bids was \$1,469,000; the average of the two lowest bids, \$1,244,000. To each of these figures should be added \$350,000, the estimated cost of the caisson, pumping machinery, capstans, blocking, etc., not included in the work under specification 1542. The total cost of the work as designed would have been:

Average of all bids.....	\$1, 469, 000
Add work not included.....	350, 000
Total.....	1, 819, 000
Average of two low bids.....	1, 244, 000
Add work not included.....	350, 000
Total.....	1, 594, 000

3. The cross section of the dock was determined after careful study of the conditions at the site, the dimensions of present ships, and probable future development, and it is believed can not advantageously be modified.

4. To provide a dock of the same cross section within the available funds would have necessitated shortening the dock by 185 feet. The dock as shortened would then take a ship only 465 feet long, which is a length shorter than that of ships now in commission and building. It should be remembered that this is a dock lined only with concrete blocks and without granite facing, except coping, meeting faces of the sills and the edges of the abutment.

5. *New designs.*—Keeping the same cross section, the design of the dock has been modified to provide a granite lining and secure a structure costing in the neighborhood of \$2,000,000. Designs have been prepared for—

(a) A dock 863 feet long over all with V-shaped end and capable of taking a ship 800 feet long over all.

(b) A dock 740 feet long over all with a reenforced concrete arched end and capable of taking a ship 686 feet long over all.

(c) Provision has been made for leaving out various lengths of mid section of the dock, reducing the total length of the dock by the amount left out.

6. *Estimates for new designs.*—Two estimates have been prepared for each design, based—

(a) On the average of all bids for work under specification 1542.

(b) On the average of the two lowest bids under specification 1542.

After deducting from the amounts of these bids the estimated cost of the items which are independent of the length of the dock, such as quay walls, pump well and pump house, capstan foundations, and cofferdam, a unit price per foot of length of the dock structure proper including crane track has been determined, together with a unit representing additional cost per foot of length for the granite lining. The units are based on lengths over all; for the average of all bids, \$1,583 per linear foot of dock; average of two low bids, \$1,331 per linear foot of dock. The estimated cost of the granite lining in each case is \$330 per foot of dock. The additional amount of granite is about 7 yards per foot.

740-foot dock, granite lined, to take a 686-foot ship.

Average two low bids:	
Unlined, 740 feet, at \$1,331.....	\$984, 940
Granite lining, 740 feet, at \$330.....	244, 200
	<hr/> 1, 229, 140
Common to all lengths, viz, quay walls, pump well, pump house, capstan foundations, and cofferdam.....	276, 100
	<hr/> 1, 505, 240
Work not included in above, as caisson, pumps, blocking, etc.....	350, 000
	<hr/> Total.....
	<hr/> <hr/> 1, 855, 000
Average all bids:	
Unlined, 740 feet, at \$1,583.....	1, 171, 420
Granite lining, 740 feet, at \$330.....	244, 200
	<hr/> 1, 415, 620
Common to all lengths, viz, quay walls, pump well, pump house, capstan foundations, and cofferdam.....	318, 000
	<hr/> 1, 733, 620
Work not included in above, as caisson, pumps, blocking, etc.....	350, 000
	<hr/> Total.....
	<hr/> <hr/> 2, 084, 000
Dock has reenforced concrete arch for head end. This arch is not faced with granite.	

863-foot dock, granite lined, to take 800-foot ship.

Average of two low bids:	
Unlined, 863 feet, at \$1,331.....	\$1, 148, 650
Granite lining, 863 feet, at \$330.....	284, 790
	<hr/> 1, 433, 440
Common to all lengths, viz, quay walls, pump well, pump house, capstan foundations, and cofferdam.....	276, 100
	<hr/> 1, 709, 540
Work not included in above.....	350, 000
	<hr/> Total.....
	<hr/> <hr/> 2, 059, 540

Average all bids:

Unlined, 863 feet, at \$1,583.....	\$1, 368, 130
Granite lining, 863 feet, at \$330.....	284, 790
	<hr/>
	1, 650, 920
Common to all lengths, viz, quay walls, pump well, pump house, cap- stan foundations and cofferdam	318, 000
	<hr/>
	1, 968, 920
Work not included in above.....	350, 000
	<hr/>
Total.....	2, 318, 000

The CHAIRMAN. The next is quay wall, extensions, \$20,000.

Mr. THOMAS. In a general way, for information, how far along is this navy-yard anyhow, in what shape is it?

Admiral HOLLYDAY. It is quite a good yard.

Mr. THOMAS. Are they doing work there now? Have they buildings there, and are they operating?

Admiral HOLLYDAY. Oh, yes; they are operating. It is the only yard we have on the Pacific coast where we can dock a battleship.

Mr. THOMAS. Are these improvements that you are calling for improvements of old buildings?

Admiral HOLLYDAY. No; it is a new plant. In 1894 it was a howling wilderness there.

Mr. THOMAS. They have never had a foundry or a pattern shop there, have they?

Admiral HOLLYDAY. Oh, yes.

Mr. THOMAS. How large?

Admiral HOLLYDAY. They are not large enough.

Mr. THOMAS. Were they supposed to be large enough when they were built? Did somebody make a mistake in building them?

Admiral HOLLYDAY. At that time each department was operating these buildings for themselves, and now the plan is to try to consolidate these buildings and have one foundry and one pattern shop and one paint shop for every department in the yard. That is what we are trying to do.

Mr. THOMAS. What are they going to do with those old buildings?

Admiral HOLLYDAY. We will put them to some proper use.

The CHAIRMAN. If you will look at the Secretary's report, you will find the total value of the plants at the navy-yards.

Mr. THOMAS. I thought the Admiral could give us, briefly, the condition at this yard.

Admiral HOLLYDAY. I do not see how I could give it any better than I have given it in my report, although I will be glad to answer any questions in addition that may be asked.

Mr. THOMAS. We have visited most of these other navy-yards, but this navy-yard at Puget Sound I do not know anything about.

Admiral HOLLYDAY. To begin with, Puget Sound is a yard that the Government has never lost a dollar on. We have gotten more for our money there than we have anywhere else, and I do not think anybody criticizes that yard. Everybody that goes there says its location is a fine one, and everybody seems to be in favor of it. It is certainly a fine yard. There is no question of water there; there is plenty of water and it is well located. It will have to have additional quay walls. The water front will have to be improved, and if we get the money to carry on this consolidation scheme we will build a foundry

and a pattern shop and storehouses. We will improve the efficiency of the yard in that way.

Mr. THOMAS. This is the point. With a new plant as this is they are commencing all that it asked for new buildings.

Mr. LILLEY. They are not new buildings they are asking for; they are not completed yet.

Mr. THOMAS. Then why do they want new ones?

Mr. LILLEY. They want more buildings. It is the best place for a navy-yard on that coast. Probably we will get work done cheaper next year than we have been able to get it for a good many years in the past, and there will be a good many contractors and workmen looking for work, and I think we ought to go right on and spend all the money at Puget Sound and direct all our energies there and make that a first-class yard.

Admiral HOLLYDAY. That is a place you can put your money without making any mistake.

Mr. LILLEY. Do you not think we had better spend all the money at Puget Sound rather than at any other place on the coast and bring the navy-yard at Puget Sound to a high state of perfection, just as if the steel folks, if you please, were going to start a new plant; instead of doing a little bit each year at some place, they would put all their money and energies in some place where they had a good location and where they could get the best results.

Admiral HOLLYDAY. You will have to do it. If you cut me down everywhere—

The CHAIRMAN. What is the next? "Quay wall, extensions, \$20,000."

Admiral HOLLYDAY. I have cut that out.

The CHAIRMAN. New sewer system extension, \$3,000.

Admiral HOLLYDAY. I have cut that out.

The CHAIRMAN. Coal shed and appliances, extensions, \$100,000.

Admiral HOLLYDAY. I have cut that out.

The CHAIRMAN. Fire protection system, extensions, \$15,000.

Admiral HOLLYDAY. I have cut that out.

The CHAIRMAN. Telephone system, extension, \$3,000.

Admiral HOLLYDAY. That is necessary.

The CHAIRMAN. Railroad and equipment, extensions, \$25,000.

Admiral HOLLYDAY. Ten thousand dollars instead of \$25,000.

The CHAIRMAN. Piers, additional, \$44,000.

Admiral HOLLYDAY. I have cut that out.

The CHAIRMAN. Central power plant, extension, \$280,000.

Admiral HOLLYDAY. I have left that in; that is necessary.

The CHAIRMAN. Administration building, \$316,000.

Admiral HOLLYDAY. I would like to explain that; that is the keystone to the consolidation. At present the various department offices are located in shops, and they are scattered over the yard, and to carry out the consolidation, if you put up one building—an administration building—you would put all the offices in there, and release that other space for shop purposes—the blueprint rooms, drafting rooms, and so on—and it would save messenger service and bring all the business together; and that is the keystone, as I have said, to consolidating the plants. The Secretary is very much in favor of the consolidation. After looking over the thing, he said: "I think Bremerton is an ideal place to start, and if we can not do it anywhere else I would like to do

as much as possible at Bremerton;" and I have cut out everything that I could at other places.

Mr. THOMAS. This is an office building that you refer to?

Admiral HOLLYDAY. Yes.

Mr. THOMAS. Is this consolidation to go right along?

Admiral HOLLYDAY. Not until we get the money. We will do what we can.

Mr. MUDD. Is that the policy of the Department, without authorization of Congress?

Admiral HOLLYDAY. I do not understand that it requires any authorization of Congress.

Mr. MUDD. That is your plan and purpose?

Admiral HOLLYDAY. That is the policy of the Department, as I understand it.

Mr. MUDD. Does that depend to any extent upon the consolidation of bureaus?

Admiral HOLLYDAY. It has nothing whatever to do with bureaus. This is Department business.

The CHAIRMAN. Pattern shops, \$75,000.

Admiral HOLLYDAY. That would be a pattern shop for all departments. We would get rid of the other pattern shops.

Mr. THOMAS. What would it be built of?

Admiral HOLLYDAY. Brick, steel, and concrete.

Mr. THOMAS. What would be the approximate size?

Admiral HOLLYDAY. I can give you that, but I can not recollect the exact size now.

The CHAIRMAN. Put it in, if you please; give us the dimensions; put that in your statement.

Admiral HOLLYDAY (after looking up size). A three-story building, 100 feet long by 60 feet wide, is contemplated.

Mr. MUDD. I think you had better put in a detailed statement as to the necessity for the administration building.

Admiral HOLLYDAY. As I remarked before, the consolidation of office space in a central administration building is in the line of economy of administration. Not only will it be possible to have blueprint rooms, photographic dark rooms, etc., in common, but by bringing together the various offices the cost of messenger and janitor service can be considerably decreased. Under the present system the offices of the various departments are scattered around in the various shop buildings, and efficient service requires more employees.

It is one of the duties of the Bureau of Yards and Docks to provide janitor service for all departments. It often happens that one janitor must distribute his time over several sets of offices, and where these offices are widely separated, not only does it require more of his time to complete his work, but it is practically impossible for the various heads of the departments for which he works to determine his whereabouts when he is needed.

The conditions at Puget Sound are peculiarly well adapted to the centralization of administration at the present time. Both the departments of steam engineering and construction and repair have been asking annually for better office accommodations. The steam engineering department is now housed in an unsightly two-story building of altogether inadequate dimensions to which wooden additions are constantly being added. These additions constitute an unjustifiable

fire menace. The construction and repair department has temporary quarters on the second floor of building No. 104, boat shop, space which is much needed for its proper purpose. The buildings occupied by the commandant, the captain of the yard, the department of yards and docks, the paymaster, the board of inspection, and the board of labor must shortly give way to the new dry dock work. The ordnance department has temporary offices in the equipment building, No. 78.

The general storekeeper occupies a temporary office in the south end of the old portion of the storehouse, building No. 59. The only department occupying offices of a permanent character is the equipment department on the second floor of its shop, building No. 78. As the department grows this space will be desired for electrical purposes, but at the present time can be advantageously used for storage space, which is inadequate at that yard.

A building, covering a ground area of approximately 100 feet square and seven stories high, has been designed as being most advantageous in economy of yard space and of space devoted to passages, etc. With such a building not only will all offices be within easy reach of the commandant, but communication between the various heads of departments will be much facilitated, and the space in shops now occupied as offices will revert to its proper uses.

The CHAIRMAN. We have the plans here that you gentlemen can look over—plans with reference to these shops.

Hardwood lumber shed, \$20,000.

Admiral HOLLYDAY. We ought to have that,

The CHAIRMAN. Water-closet for ships in dock, \$12,000.

Admiral HOLLYDAY. We ought to have that.

The CHAIRMAN. Storehouse for ships' stores, \$150,000.

Admiral HOLLYDAY. I have cut that out.

The CHAIRMAN. Oil house, \$30,000.

Admiral HOLLYDAY. We need that, sir.

The CHAIRMAN. Crematory, \$8,000.

Admiral HOLLYDAY. I have cut that out.

The CHAIRMAN. Dry kiln, \$6,000.

Admiral HOLLYDAY. We need that.

The CHAIRMAN. Officers' quarters, \$18,000.

Admiral HOLLYDAY. I have cut that out.

The CHAIRMAN. Warrant officers' quarters, \$4,000.

Admiral HOLLYDAY. I have cut that out.

The CHAIRMAN. Water front appliances, \$4,000.

Admiral HOLLYDAY. I have cut that out.

The CHAIRMAN. Underground conduit system, \$15,000.

Admiral HOLLYDAY. We need that.

The CHAIRMAN. Electric elevator and fittings, building No. 59, \$8,000.

Admiral HOLLYDAY. We need that.

The CHAIRMAN. What is that building?

Admiral HOLLYDAY. I think it is a storehouse.

The CHAIRMAN. Eight thousand dollars; you need that?

Admiral HOLLYDAY. Yes.

The CHAIRMAN. Electric capstans, \$5,000.

Admiral HOLLYDAY. I have cut that out.

The CHAIRMAN. Toilet rooms and skylight over sail loft, \$1,500.

Admiral HOLLYDAY. I have cut that out.

The CHAIRMAN. Foundry for all departments, \$175,000.

Admiral HOLLYDAY. If you want to authorize that consolidation scheme-----

Mr. THOMAS. What have they at present?

Admiral HOLLYDAY. Two, probably three, small foundries; all of them overcrowded. If we keep them there, we will have to extend them.

The CHAIRMAN. What is the total amount you figure?

Admiral HOLLYDAY. For Puget Sound, \$685,000.

Mr. MUDD. You say you want that foundry if you have the consolidation scheme carried out?

Admiral HOLLYDAY. I mean if the committee is in sympathy and would like to see the Department carry out that plan.

NAVY-YARD, PENSACOLA, FLA.

The CHAIRMAN. The next is "Navy-yard, Pensacola, Florida. Sea walls, \$50,000."

Admiral HOLLYDAY. I have cut that out.

The CHAIRMAN. Dredging and filling in, \$10,000.

Admiral HOLLYDAY. I have cut that out.

The CHAIRMAN. Water system, \$10,000.

Admiral HOLLYDAY. I think we need that.

The CHAIRMAN. Storage system and latrines, \$20,000.

Admiral HOLLYDAY. I have cut that out.

The CHAIRMAN. Machinery for central power plant, \$15,000 to complete.

Admiral HOLLYDAY. We need that.

The CHAIRMAN. Roads and walks, \$5,000.

Admiral HOLLYDAY. I have cut that out.

The CHAIRMAN. Railway tracks and equipment, \$10,000.

Admiral HOLLYDAY. We need that.

The CHAIRMAN. Tools for yards and docks, \$1,800.

Admiral HOLLYDAY. We need that.

The CHAIRMAN. Paint shop for all departments, \$5,000.

Admiral HOLLYDAY. I have provided for that; you can cut that out.

The CHAIRMAN. Two quarters for warrant officers, \$6,000.

Admiral HOLLYDAY. I have cut that out.

The CHAIRMAN. What is the total for the Pensacola Navy-Yard?

Admiral HOLLYDAY. \$36,800.

NAVAL STATION, NEW ORLEANS, LA.

The CHAIRMAN. The next is "Naval station, New Orleans, La. Improvement of water front, \$25,000."

Admiral HOLLYDAY. I have cut that out.

The CHAIRMAN. Drainage system, to continue, \$5,000.

Admiral HOLLYDAY. We need that.

The CHAIRMAN. Central heating plant, extension, \$10,000.

Admiral HOLLYDAY. We need that.

The CHAIRMAN. Paving, \$10,000.

Admiral HOLLYDAY. I have cut that out.

The CHAIRMAN. Underground conduit, \$5,000.

Admiral HOLLYDAY. We need that.

The CHAIRMAN. Improvements to machine shop No. 4, \$6,000.

Admiral HOLLYDAY. We need that.

The CHAIRMAN. Sewage system, extension, \$5,000.

Admiral HOLLYDAY. We need that.

The CHAIRMAN. Improvements to steam engineering buildings, \$9,000.

Admiral HOLLYDAY. I have cut that out.

The CHAIRMAN. What is the total?

Admiral HOLLYDAY. Thirty-one thousand dollars.

Mr. LILLEY. You say we need these things. You mean we need them if we are going to maintain the yard?

Admiral HOLLYDAY. I mean in order to get proper use of what we have already there.

Mr. LILLEY. Exactly; but you do not believe that New Orleans is a good place for a navy-yard, or, to put it this way, that it is necessary to have more than one navy-yard in the Gulf?

Admiral HOLLYDAY. No; I do not think we should have but one.

Mr. LILLEY. And which place would you have that?

Admiral HOLLYDAY. Well, I don't know; I rather think Pensacola would be the best place on the Gulf.

NAVAL STATION, OLONGAPO, PHILIPPINE ISLANDS.

The CHAIRMAN. Now we come to Olongapo, Philippine Islands, on page 106 of the bill. What have you done with reference to that station?

Admiral HOLLYDAY. I have cut everything out.

The CHAIRMAN. What do you regard as the most important of those items there?

Admiral HOLLYDAY. I regard it most important to decide whether the station is going to be at Cavite or at Olongapo. I do not think we should have both stations. In cutting this bill down I have cut out all foreign stations.

Mr. BUTLER. What method do you suggest, by which we could be correctly advised as to the desirability of establishing a station at either one of those points.

The CHAIRMAN. I thought we had settled that.

Admiral HOLLYDAY. That it is established?

The CHAIRMAN. Yes.

Admiral HOLLYDAY. The station at Olongapo is established?

The CHAIRMAN. Yes; I thought it was settled to establish one at Olongapo.

Mr. BUTLER. If I remember correctly, during the time that Mr. Moody was Secretary of the Navy it was decided to establish a naval station at Olongapo.

Admiral HOLLYDAY. The station there is authorized to the extent that Congress has appropriated money, and it has also appropriated money for Cavite. In this bill I have tried to get the total of the estimates down to meet the views of you gentlemen.

The CHAIRMAN. What do you regard as the most important of these items at Olongapo?

Admiral HOLLYDAY. That comes at me in another way. If it is the general policy to establish a station at Olongapo and not have one

at Cavite, I would have made up an estimate in another way. I would take the consolidation plan and put in a shop there, just one shop for each one of the uses. But I have not prepared an estimate along that basis. I want to invite the attention of the committee to one thing. There was a lot of money appropriated out there, and the estimate was submitted, as I understand, by the general board, and they used unusual phrases. They limited quantities and prices and all that sort of thing, and the result was that the Comptroller decided that we could not expend that money except as was specifically provided. For instance, if the provision was for 560 feet of 4-inch pipe at 57½ cents a foot, the Comptroller decided that you could not buy anything for 57 cents or for 58 cents; that Congress put this limitation in the bill and it was necessary to conform strictly thereto.

Mr. LILLEY. You have said that you did not want to criticise Congress. I think it would be a good thing if you would criticise Congress where you think they ought to be criticised.

Admiral HOLLYDAY. What I would like to do would be this: There is a balance there of \$110,000 that Congress has appropriated, and it can not be used because of these unusual phrases that are used.

The CHAIRMAN. Will you give us a provision that we can insert in the bill?

Admiral HOLLYDAY. Yes; I have it here.

Insert on page 107 of this bill, draft No. 1 of the naval appropriation bill, at the end of the thirteenth line:

The Secretary of the Navy is authorized to expend, without limitation as to quantities and unit prices, the various amounts appropriated by the act approved April 27, 1904, entitled "An act making appropriations for the naval service for the fiscal year ending June 30, 1905, and for other purposes" for the naval station, Olongapo, Philippine Islands, for the respective improvements therein named.

The wording of this bill was:

For building 1,750 feet of quay walls, at \$1.44 per foot (one-fourth), \$63,000.

Amount expended at the station on preliminary work, before decision of Comptroller, \$50.44.

The CHAIRMAN. You have those figures there?

Admiral HOLLYDAY. Yes.

The CHAIRMAN. Please put those in your statement.

Items limited as to quantities and prices.

Appropriated by act of April 27, 1904.

Toward building 1,750 feet of quay wall, at \$1.44 per foot (one-fourth)...	\$63,000.00
Amount expended at the station on preliminary work before decision of Comptroller.....	50.44
Balance.....	62,949.56
Dredging entrance to basin, channel 400 by 35 feet deep, about 25,000 cubic yards, at 30 cents.....	7,500.00
No expenditures.	
Dredging in basin in front of quay walls, 160,000 cubic yards, at 30 cents, for floating dock.....	48,000.00
Expended for construction of dredge before Comptroller's decision.....	9,630.00
Balance.....	38,370.00

Water supply from brick-yard springs (capacity, 50,000 gallons in 10 hours):	
11,000 feet 4-inch galvanized pipe, at 47½ cents per foot.....	\$5,225.00
Valves and fittings.....	250.00
Freight and transportation.....	720.00
Distribution in yard.....	1,500.00
Laying pipes.....	3,200.00
Temporary reservoir, 40 by 40 by 10 feet, capacity, 100,000 gallons..	5,000.00
Total.....	15,895.00
Expended for elevated tank for temporary reservoir.....	4,195.00
Balance.....	11,700.00

RECAPITULATION.

Appropriated.....	\$134,395.00
Expended.....	13,875.44
Balance unexpended.....	110,519.56

Subsequent appropriations for similar purposes.

For quay wall, act March 2, 1907.....	\$50,000.00
For dredging, none.....	
For water supply, act March 2, 1907.....	40,000.00

The CHAIRMAN. These estimates were brought here by the Secretary of the Navy, Mr. Moody, and were put in, and they recommended that they be put in that way. So it is no fault of the committee.

Mr. MUDD. This was the appropriation for 1904?

Admiral HOLLYDAY. Yes.

Mr. MUDD. What has been done since then, if anything?

Admiral HOLLYDAY. Oh, yes, we have been going right ahead spending other money as fast as appropriated. We are putting up a coaling plant there that will cost half a million dollars.

Mr. BUTLER. Yet there is the suggestion that we should abandon that.

Admiral HOLLYDAY. I am not making any such suggestion.

Mr. BUTLER. I understand that; I mean the suggestion comes from others.

Admiral HOLLYDAY. We have a coaling plant that will cost over \$500,000 at Cavite.

The CHAIRMAN. I submit that the Chief of the Bureau of Yards and Docks be asked to give us what he regards as most important.

Mr. MUDD. I have not heard any recommendations as to what we shall build or appropriate for at Olongapo.

The CHAIRMAN. He will submit that. That will be included in the hearing.

Admiral HOLLYDAY. I would recommend that \$200,000 be appropriated "toward the improvement and development" of the naval station, Olongapo.

NAVAL STATION, ISLAND OF GUAM.

The CHAIRMAN. The next is Guam. Dredging, \$3,000.

Admiral HOLLYDAY. The estimate for the island of Guam was \$32,000. Water system, \$10,000; extension of naval station roads, \$10,000; dredging, \$3,000; fire protection system, \$7,500; extension of telephone system, \$15,000. Total, \$32,500.

The CHAIRMAN. How do you feel about that?

Admiral HOLLYDAY. I think we ought to have all of that. Nobody looks out for these people there except the Navy. The whole island has been placed under the Navy Department by Executive order.

NAVAL STATION AT HONOLULU.

The CHAIRMAN. Coming to Honolulu, what have you to say about that?

Admiral HOLLYDAY. I have cut that out entirely.

The CHAIRMAN. Do you need these repairs?

Admiral HOLLYDAY. Yes. The repairs will have to be made.

The CHAIRMAN. This year?

Admiral HOLLYDAY. We may get along one more year. I had to give them some money this spring. Those wharves were smashed in.

NAVAL STATION, PEARL HARBOR, HAWAIIAN ISLANDS.

The CHAIRMAN. The next is Pearl Harbor. Dry dock and appurtenances (to cost \$2,000,000), \$500,000.

Admiral HOLLYDAY. I think we ought to have a station there. But I would rather have \$500,000 toward the development of the station at Pearl Harbor. There is a lot of things to be done there, and if you appropriate for the dry dock first, you have to do these other things after all.

Mr. BUTLER. How deep is the water at Pearl Harbor?

Admiral HOLLYDAY. There is plenty of water, or will be after a comparatively small amount of dredging.

Mr. BUTLER. What is the depth inside?

Admiral HOLLYDAY. I understand that there is plenty of water. I have not looked it over very carefully, but talking with an officer who knew about it, talking to him within the last ten days, he said that there was plenty of water inside.

Mr. MADD. Have you, say, 25 feet to get in there?

Admiral HOLLYDAY. It is quite shoal there to get in. We will have to dredge a channel.

The CHAIRMAN. You will have to straighten the channel and take off those coral corners, too.

Admiral HOLLYDAY. Yes; we will.

Mr. BUTLER. What did you conclude to do at Pearl Harbor?

Admiral HOLLYDAY. I cut everything out. I would say, for the information of the committee, that if they had any idea of doing anything towards Pearl Harbor, I say I think it would do more good to appropriate \$100,000 "toward the development" at Pearl Harbor than to appropriate for a dry dock unless we can have both. If you appropriate for the dry dock I certainly will want the \$100,000 also. I would find out how much it would cost to get in there so the committee would know that when they come to appropriate for the improvement of the station.

Mr. LILLEY. I would think you would have to get a place to get in before you built the dry dock.

Admiral HOLLYDAY. No; because you can do the dredging very much quicker than you can build a dry dock.

The CHAIRMAN. Let us go to the next item.

NAVAL STATION, CAVITE, PHILIPPINE ISLANDS.

The CHAIRMAN. "Extension of boat-storage shed, \$6,000. Improvements to central wharf, \$5,000; and so on." These are all small improvements at Cavite. They make \$59,700 in all. They are improvements to buildings?

Admiral HOLLYDAY. We are doing a good deal of work there.

The CHAIRMAN. Last year we did \$498,000 worth of work there?

Admiral HOLLYDAY. Yes; we have done quite a lot of work there. This is along the line of necessary repairs.

Mr. THOMAS. Is there anything of value at Cavite that can be carried over to Olongapo?

Admiral HOLLYDAY. There are no buildings there that we could move, but there is some machinery and plant that we could move.

The CHAIRMAN. Let us pass on to the next one.

NAVAL STATION, CULEBRA, PUERTO RICO.

The CHAIRMAN. Clearing and cleaning station, \$1,500. Cold storage plant, improvements, sewer system, fire-protection system; in all, \$11,100.

Admiral HOLLYDAY. Yes, the whole amount I submit there is \$11,100; but I had to cut, and so I cut that.

The CHAIRMAN. Then we will go to the next item.

NAVAL STATION, TUTUILA.

The CHAIRMAN. For the naval station at Tutuila, you ask for dispensary and sick quarters, \$15,000.

Admiral HOLLYDAY. I have cut that out, although I would like very much to have it in.

The CHAIRMAN. Plans and specifications for public works. You ask \$40,000 instead of \$30,000?

Admiral HOLLYDAY. Yes. We can not spend any more than you appropriate. The work has increased, but there is not enough money to let us get out the work as expeditiously as possible. In all cases we have to use money out of that fund for work done at the Bureau.

The CHAIRMAN. Is not that fixed by the Committee on Appropriations?

Admiral HOLLYDAY. We are asking them to allow the expenditure. You appropriate the money and they raise the limit. You can appropriate the money but we can not spend it unless they raise the limit.

The CHAIRMAN. "Repairs and preservation of navy-yards." For repairs and preservation of navy-yards and stations, \$750,000. That is an increase of \$250,000.

Admiral HOLLYDAY. Yes. That is an increase. We have not had money enough to keep up our buildings properly, and our streets, and so forth. We are getting more property every year.

Mr. MUDD. But is not that, to some extent, a duplication of what we have been specifically appropriating for?

Admiral HOLLYDAY. No. Under public works it is new work, unless it is what you would call on a railroad, "betterments," for instance, changing from wood to stone is a betterment; but the repairs

are just the ordinary repairs. The wording indicates exactly the character of the work.

The CHAIRMAN. Why do you need any such large increase?

Admiral HOLLYDAY. Because we have not had money enough to keep up the repairs. You probably have noticed, in visiting the different navy-yards, the number of buildings that should be repaired; but we have not had the money to make the necessary repairs.

Mr. BUTLER. Under that, could you put a roof on?

Admiral HOLLYDAY. We could repair a roof, put a wooden roof on. We would not put on a steel or concrete roof. That would be a betterment. We can make any repairs.

Mr. DAWSON. I would like to ask the Admiral to put into his hearing the number of shops at four yards—Boston, League Island, Norfolk, and Mare Island.

Admiral HOLLYDAY. The number of shops?

Mr. DAWSON. The number of different shops on this catalogue. [Exhibiting catalogue to Admiral Hollyday.]

Admiral HOLLYDAY. That is all in my report.

Mr. DAWSON. At each yard?

Admiral HOLLYDAY. Yes. The size of each and what they are built of.

Mr. DAWSON. That is simply under your Bureau?

Admiral HOLLYDAY. No; everything in the navy-yards.

The CHAIRMAN. There is only a page more in your Bureau.

NAVAL STATION, GUANTANAMO, CUBA.

The CHAIRMAN. The next is, "Guantanamo. Water system, extension, \$10,000; dry docks, ice plant, naval dispensary, and sick quarters, etc.; in all, \$425,000." You have cut that out?

Admiral HOLLYDAY. In pursuing that policy of cutting down, yes; I have cut it all out.

The CHAIRMAN. Floating derricks, "100-ton floating derricks (to cost \$1,015,000), \$500,000.

Admiral HOLLYDAY. I have asked for four.

Mr. MUDD. There is no number indicated in the bill.

Admiral HOLLYDAY. Yes; it is in the bill.

Mr. MUDD. 100-ton floating derricks, it does not say how many. There is no statement as to how many.

Admiral HOLLYDAY. It should be four. \$250,000 apiece. This is the derrick [exhibiting photographs]. "The Hercules" at the New York Navy-Yard—

The CHAIRMAN. It is in the estimate as to how many, but not here. We will put it in. Those are the derricks, are they? [Indicating photographs.]

Admiral HOLLYDAY. Yes; these are the derricks. They are the greatest machines in the world for that kind of work.

Mr. BUTLER. Have we any derricks now?

Admiral HOLLYDAY. We have one.

Mr. BUTLER. At what point?

Admiral HOLLYDAY. At the New York Navy-Yard.

Mr. MUDD. Where do you want these?

Admiral HOLLYDAY. My idea is to have two on the Atlantic Ocean, one on the Pacific, and one in the Philippines, if we get four. If we only get one, it would probably go to the Pacific coast.

Mr. LILLEY. Are you asking for an appropriation for a floating dry dock for Chesapeake Bay?

Admiral HOLLYDAY. Yes. I submitted that in the report to the Secretary and he cut it out. Then the Secretary decided to ask for it, and there is a special letter about it written to the committee, I think.

The CHAIRMAN. You say you would have one on the Pacific coast if we only had one?

Admiral HOLLYDAY. If we had four the idea would be to have two on the Atlantic, one on the Pacific, and one in the Philippine Islands. In handling these heavy guns, the derrick goes up to a battleship and in a day or two will strip the ship of turrets and heavy guns. It is considered a military necessity at naval stations. The Bureau of Navigation has advised my Bureau that a machine of this sort is considered a military necessity at Boston and League Island and probably at other yards. I think the same thing applies to all of our working yards at which battleships are repaired.

The CHAIRMAN. What about the storehouse for reserve material, \$360,000?

Admiral HOLLYDAY. In cutting down the bill I recommend that that be cut out.

The CHAIRMAN. That completes the appropriations for "Yards and Docks." We are very much obliged to you.

Thereupon, at 1 o'clock p. m., the committee adjourned.

[No. 5.]

COMMITTEE ON NAVAL AFFAIRS.

Wednesday, January 15, 1908.

The committee this day met, Hon. George E. Foss in the chair.

**EQUIPMENT OF VESSELS,
STATEMENT OF REAR-ADMIRAL WILLIAM S. COWLES, CHIEF
BUREAU OF EQUIPMENT.**

The CHAIRMAN. Page 35, Bureau of Equipment. "Equipment of vessels: Hemp, wire, iron, and other materials for the manufacture of cordage, anchors, cables, galleys, and chains, etc." I see the paragraph is identical with that of last year excepting that you are asking for an increase of \$1,000,000.

Admiral COWLES. Shortly after the expiration of the first half of the fiscal year 1907 it became very evident that unless retrenchment was made in the expenditures under this appropriation a deficiency would exist at the end of the fiscal year. This was only accomplished at the expense of considerable inconvenience and reduced efficiency in the operations of the Bureau, principally by the loss from furlough or absolute discharge of artisans skilled in the particular and peculiar work of the naval service, arising from the necessity of reducing the amount allowed to navy-yards for expenditures for labor rolls. Much necessary and important work in consequence was delayed or discontinued indefinitely.

As far back as the fiscal year 1904 the amount appropriated under this item was \$3,050,000, and no increase has since been made to meet increased requirements of the service except an increase of \$250,000 for the fiscal year 1908, despite the fact that the naval service, and in consequence the work of the Bureau, has enormously increased and that there has been a material increase in the cost of commercial stores and supplies used in the equipment of naval vessels.

In addition to this an item of \$35,000 has been included to cover necessary work to be done on vessels loaned or to be loaned to the State for the use of Naval Militia, the Department having decided that in future all repairs to such vessels will be made in the usual manner the same as to other vessels of the naval service and paid out of the naval appropriation. In my opinion the amount will be in excess of \$35,000.

The greatest item that I have is for increased expenditures in the electrical branch—for instance, in the fire control, \$400,000. Then there is an estimated increase of 10 per cent in the cost of repairs and stores due to an increase in the number and size of the vessels comprising the naval service. This will amount to about \$100,000. We have fitted 15 battle ships with fire control. One of the battle ships was previously fitted by our Bureau at the Norfolk yard.

The CHAIRMAN. For what purpose is most of the money under this paragraph spent? There is enumerated "hemp, wire, iron, and other materials for the manufacture of cordage, anchors, cables, and so forth." Where is most of it spent?

Admiral COWLES. It goes for those items and also for electrical work. There is \$690,000 increase asked for in the electrical branch alone. Then there is the maintenance of wireless telegraph stations and wireless telephones for the year 1909, which it is estimated will amount to \$143,000. This maintenance includes any new buildings that may be necessary to erect, repairs to such buildings, fuel to run the engines, and necessary incidentals. For the maintenance of wireless telegraph stations on ships, \$50,000. There are 75 vessels of the navy fitted, or about to be fitted, with wireless; this includes the necessary upkeep. Then there is a certain amount of stock to be carried on hand, which includes various parts of apparatus, such as transformers, keys, tuners, etc. For replacing old sets which are now obsolete and installing new ones on about 50 vessels, \$50,000. The new sets would be ready for installation whenever an emergency arises. Then there is the wireless apparatus to be provided for the torpedo boats and destroyers at a cost of about \$43,000; and for auxiliaries, supply ships, and colliers at a cost of \$52,000. It is contemplated to establish a new long-distance station at Valdez, Alaska, which has already been authorized by the Department, but delayed owing to a lack of funds; and at least \$75,000 should be expended in rehabilitating the wireless stations in the West Indies.

Mr. ROBERTS. What range can you get with your wireless upon the torpedo boats? Your mast has to be short on those boats.

Admiral COWLES. They just use them for signaling purposes, but still they get a very good range—that is the ordinary wireless. I should say about 100 miles. From the battle ships we talk about 700 miles under good conditions. This distance is exceeded when conditions are exceptional.

Mr. ROBERTS. And I suppose that is due to having a more powerful system, and also a higher mast?

Admiral COWLES. Yes. Then, of course, there are some stray shots that go very far; for instance, one of the wireless stations on the coast of California picked up the *Connecticut*, which was talking off the coast of Cuba, taking down the message, and also picking up a message that *Pensacola* was sending. It appeared in the press and I think the general public thought it was a fake, but the fact was duly verified.

Mr. TALBOTT. What station got that message?

Admiral COWLES. The station at Point Loma, near San Diego.

Mr. ROBERTS. Then they must have a very high mast.

Admiral COWLES. Yes, I think it is pretty high; but think of the high mountains between. We found that this message had been sent by reference to the log of the *Connecticut*. Of course no response was made by the Point Loma station, and yet the atmospheric conditions were such that the message was actually caught; whether the message really went around the world in the other direction or not we do not know. They received it, and it was a very interesting fact.

The CHAIRMAN. Can you furnish a statement of the expenditure during the last fiscal year upon all of these items in this paragraph? Please put that in your statement, so that we will know just where the money went.

Equipment of vessels, 1907.

Principal items of appropriation.	Dr. Expendi- tures.	Cr. Appropri- ation.
Appropriation.....		\$3,000,000
Hemp for rope, cordage, etc.....	\$40,554	
Wire, iron, etc., for manufacturing chain, cables, anchors, etc.....	25,346	
Canvas for awnings, sails, etc.....	134,842	
Water.....	50,693	
Library books.....	30,415	
Stationery, typewriters, etc.....	74,011	
Removal of ashes and transporting same.....	7,097	
Interior appliances and tools for navy-yard use.....	82,361	
Athletics.....	7,604	
Wireless telegraphy and outfits.....	405,540	
China, glass and plated ware, table linens, etc.....	25,746	
Bakery, galley mess and pantry utensils.....	25,346	
Labor at navy-yards.....	1,044,746	
Pay for legal and half holidays—annual leaves.....	106,454	
Pilotage and towage.....	49,678	
Canal tolls, wharfage, etc.....	15,495	
Nautical and astronomical instruments, compasses, binnacles, etc.....	101,385	
Naval signals and apparatus.....	8,110	
Lanterns, lamps, etc.....	5,058	
Bunting and other flag material.....	40,554	
Photographic material, instruments, etc.....	1,014	
Musical instruments and music.....	16,222	
Interior and exterior communication, etc.....	367,425	
Foreign and miscellaneous account—impracticable to specify.....	318,840	
	2,984,536	
Balance.....	15,464	
	3,000,000	3,000,000

Amongst the expenditures included in the last item in the preceding table, "Foreign and miscellaneous account," \$318,840, may be included—

Carpets.	Awls.
Rugs.	Axes.
Curtains, rods, and fixtures.	Chisels.
Dustpans.	Crowbars.
Mats.	Hammers.
Shades.	Hatchets.
Cuspidors.	Knives.
Bath tubs.	Mauls.
Water coolers.	Mallets.
Scales.	Pliers.
Pumps.	Scrapers.
Hose.	Wheelbarrows.
Nozzles.	Brooms.
Reducers.	Brushes.
Boat claws.	Cleaning materials.
Boatswain's calls.	Tray.
Commanders, iron and wood.	Sewing machine and materials.
Boat cushions.	Squillees.
Dies and fenders.	Soap.
Hand and leg irons.	Matches.
Jacob's ladders.	Toilet paper.
Life belts.	Oil cans, filters, tanks.
Life buoys.	Waste cans.
Nail punches.	Sounding machines and equipment.
Mauling spikes.	Logs and lines.
Mufflers.	War games.
Cargo nets.	Alcohol.
Palms, roping, and fire grenades.	Graphite.
Saïnes.	Grease, oil, and other lubricants.
Turn-buckles.	Rosin.
Printing outfit.	

The CHAIRMAN. Also put in a statement showing where this increase of \$1,000,000 will go.

Vessels loaned Naval Militia.....	\$35,000
Fire control for naval vessels.....	400,000
Ten per cent increase cost of electrical repairs and stores.....	166,600
Additional searchlights for torpedo defense.....	33,000
Turbo-generator for <i>Iowa</i> , <i>Indiana</i> and <i>Virginia</i>	56,000
Improved turret training control.....	102,000
Wireless telegraphy.....	200,000
Anchors and chains, and miscellaneous equipment.....	100,000
Total.....	1,026,000

Admiral COWLES. The foregoing statement will show approximately the items of expenditure which are contemplated and make up the additional \$1,000,000 under this item necessary. It is probable that this list of contemplated expenditures may not represent with any great degree of accuracy the actual expenditures at the close of the fiscal year for which the increase is requested. There are many conditions and circumstances which may tend to upset any calculations made for the future. There are several other items of miscellaneous ships' equipment under this Bureau that will necessitate material increases in expenditures for the next fiscal year over the present one, in order to keep the vessels of the service in an efficient condition. These increases, however, we contemplate taking care of out of the general appropriation. For instance, there is an item for crockery, \$14,500. We are giving the men stone china now instead of the old kind, the old cast-iron and porcelain-lined ware which we used to have. They like it much better and there is a much less percentage of breakage. They are more careful of it, they being put upon the same footing that the officers are with regard to the outfit of tableware, although we do not give them the same things, of course.

Mr. ROBERTS. I suppose it is more sanitary, too.

Admiral COWLES. Yes. It also makes it more homelike, and if you can do anything to make it more homelike aboard a man-of-war at the mess table it is much better. They always get a good meal at the mess table, too, I can tell you that, and it is nice and clean. Potato peelers, \$5,000 extra. I will add there that the potato peeler saves about one-third of the potatoes in a barrel. Instead of all hands sitting down and carving up the potatoes, and losing about half, we are now able to save about one-third more per barrel and much time.

Anchors, \$60,000 extra, and chains \$100,000.

Mr. ROBERTS. That is due to the new ships coming in?

Admiral COWLES. Yes; several anchors were lost during the past year. Nine of the battle ships were supplied with spare anchors, and extra anchors were put on board of the supply vessels for use of the Atlantic Fleet, also extra 5-fathom shots of chain of larger size were supplied to the battle-ship fleet in order to avoid the possibility of losing anchors.

Mr. LOUD. I suppose they lose more or less on account of accident.

Admiral COWLES. They are occasionally lost in that way.

Mr. PADGETT. What is the estimated cost of an anchor and chain, say, for a battle ship?

Admiral Cowles. A patent anchor for battle ship made of cast steel costs about 6 cents per pound, and the navy-type anchor made of wrought iron costs about 14 cents per pound. The cost of 2½-inch chain recently made at Boston Navy-Yard was about 8½ cents per pound. The navy-type anchor is not being used in new construction, being superseded fast in the older ships by patent anchors.

Mr. Loud. But the average shows ten and a fraction on the whole.

Admiral Cowles. Yes. That was the average cost of chain made during the past fiscal year. The Department made a contract with the Monongahela Iron and Steel Works for four chain cables (2½-inch size), each 120 fathoms long, at a cost of 8½ cents per pound in 1905. The cables were to be delivered in March, 1906. This firm was unable to make the swivels, club links, and shackles, which were made by the Government at their request. We have not got the cables yet, and I really do not know when they will be delivered. It is represented five-sixteenths completed.

Mr. Loud. What is the reason for the delay?

Admiral Cowles. Inability to get chain makers.

Mr. Loud. It is a fact, is it not, that this concern never has made chains for that character of use before, and that this is their first embarkation in that line of business?

Admiral Cowles. Yes.

Mr. Loud. That, I think, is a fact. They have experimented with them, but have not succeeded with them.

Admiral Cowles. That is the case.

Mr. Padgett. How much in a chain?

Admiral Cowles. There would be about 55,000 pounds to a chain, and that roughly at 9 cents a pound—call it 10 cents—would be \$5,500. An anchor for a battle ship weighs from 11,000 to 17,600 pounds. Cast-steel patent anchors cost about 6 cents a pound.

Mr. Loud. Are those cast-steel anchors purchased, or are they made by the Government?

Admiral Cowles. They are purchased. All of the navy type anchors are made in the chain shop at Boston, and we made them out of the material left over from the chain shop and the old condemned chains.

Mr. Loud. Even when made of scrap they cost 14½ cents a pound; that is, the anchors made in the shops?

Admiral Cowles. Yes; about 14½ cents per pound. We are very liberal to the people in the navy-yards; we give them good pay, several holidays, leave with pay, and of course the anchors cost a good deal. The chains made in the Boston yard during the past fiscal year cost about 7 cents for the material and 3½ cents for the labor of the chain makers; this work turns out chains superior to any purchased from private firms.

The Chairman. Per pound?

Admiral Cowles. Yes. Now the actual cost of the material is 3.9 cents per pound in the muck bar.

Mr. Loud. Before it is rolled?

Admiral Cowles. Yes.

Mr. Loud. Is not that a very excessive cost?

Admiral Cowles. We can not get it any cheaper when using the best iron. We have to put in the best iron because we have to carry light chains. We can not use the chains that they make for the outside trade because they will not stand the tests.

Mr. LOUD. How many manufacturers of iron in the United States can meet your requirements?

Admiral COWLES. Several, I think; but the only one that we have found of late years has been the Carter Iron Company.

Mr. LOUD. The Monongahela Company?

Admiral COWLES. Yes.

Mr. LOUD. And they have a monopoly of furnishing iron for your use?

Admiral COWLES. No; they have not. Others bid against them, but their iron does not come up to the specifications.

Mr. LOUD. Exactly; and your specifications are such that no other concern in the United States can beat them excepting the Carter Iron Company.

Admiral COWLES. I do not think so; and that would not speak well for the concerns that make iron.

Mr. LOUD. Your specifications call for one-hundredth of 1 per cent of sulphur, and there is no other concern in the United States that can furnish iron of that quality.

Admiral COWLES. They could if they wanted to.

Mr. LOUD. But so far as one can learn as to the commercial use of iron, there is no other concern, is there?

Admiral COWLES. Yes; but they do not care to go into it. We have to use the very lightest chain that we can get that will give us the proper strength. We can not use a 3 or a 3½ inch chain, such as would be used by a merchant ship. That is made out of ordinary scrap.

Mr. LOUD. The chemist at the navy-yard in Washington, and also at the Bureau of Standards, both say—I think I have a letter in my possession from the Bureau of Standards—that two and one-half to three one hundredths per cent of sulphur is no detriment whatever as to the ductility of iron, still you put a limit on your specifications of one-hundredth of 1 per cent.

Admiral COWLES. Whenever we try this other iron it goes to pieces, it fails; and it does not come up to the requirements. We have pretty hard work to make chains light enough and at the same time strong enough.

Mr. LOUD. Is it possible that the chains all over the United States which are used by other people go to pieces when they are made of other iron than that of the Carter Iron Company?

Admiral COWLES. I think they would go to pieces if they were used on a man-of-war; yes, sir.

Mr. ROBERTS. And using the same kind of chain?

Admiral COWLES. Yes; because it is of a tremendous weight, and often in moving a man-of-war at the rate of 2½ to 3 knots she will snap an ordinary chain if there is no give to it, either veering or dragging.

Mr. LOUD. But is it not true that great passenger steamers use these chains when they come into our ports?

Admiral COWLES. That would be true if they used the chain of the same weight that they do on a man-of-war. Of course, they occasionally drop anchor, but they do not use their anchors in the same way that we do. They are taken in charge by tugs and brought alongside the dock.

Mr. LOUD. This specification calling for one-hundredth of 1 per cent of sulphur is most unusual, is it not?

Admiral COWLES. We wish to get the best we can.

Mr. LOUD. But is it not unnecessarily severe?

Admiral COWLES. I do not think so.

Mr. LOUD. That is contrary to the opinion of the Bureau of Standards.

Admiral COWLES. The chemist of the Bureau of Standards, Mr. W. A. Noyes, was unable to find an authoritative statement as to the difference of 0.01 per cent in sulphur content of iron essentially changing the strength thereof where the iron contains less than 0.025 per cent of sulphur. He also stated that he was not an expert in this field.

Mr. LOUD. Certainly, we wish all the information that we can get. The standard used by the Navy Department is far more exacting in regard to iron than that of any private concern in the United States.

Admiral COWLES. But you see, making chain for a man-of-war is really not a commercial proposition.

Mr. LOUD. It should be on a level with it, should it not?

Admiral COWLES. I do not think so, unless they make the iron and then make the chains from it. Several of those chains that we had made at Lebanon have failed and we had to put Government chains in their places, and that is the only firm that has made big chains for use outside of the Monongahela.

Mr. LOUD. The Government chains have also failed on occasion, haven't they?

Admiral COWLES. Yes; but the Government chains are put to great stress when they fail. When a squadron of battle ships make a flying moor the chains are subjected to great stress.

Mr. LOUD. May I ask if there is any instance where the purchased chains have parted under stress in actual service?

Admiral COWLES. Yes; the *Minnesota* parted her cable at about 87 fathoms from the anchor in a gale off Cape Cod on September 30, 1907.

Mr. LOUD. Is there any other instance of that kind beside that shown to us at the Boston Navy-Yard when we were there, wherein a chain was taken out?

Admiral COWLES. Yes; on two colliers; but these were English chains.

The CHAIRMAN. Who gets up the specifications for the chains?

Admiral COWLES. They are gotten up in the Bureau of Equipment and based upon the very best ore we can get.

Mr. LOUD. Was that on account of the quality of the ore that they were taken out of the ship, or on account of roughness, or because they would not fit the windlass? I believe that was the reason for the trouble at the Boston yard.

Admiral COWLES. Because the chains did not fit the windlass, causing heavy swinging while heaving up the anchor.

Mr. LOUD. There was a cause given to us as to why they were taken off that particular battle ship, but it was not on account of complaint about the strength of the iron.

Admiral COWLES. The chains were removed because the links were of such irregular shape.

Mr. ROBERTS. Do you, as Chief of the Bureau, have the same confidence in the commercial chains for use on battle ships as you do in the chains that you make?

Admiral COWLES. No; we do not have, and commanding officers do not want to take them.

Mr. ROBERTS. Do you know how the captains feel about these commercial chains?

Admiral COWLES. They do not want to take them.

Mr. TALBOTT. Where do you get those chains?

Admiral COWLES. From the Boston Navy-Yard. We got behind at one time four or five years ago, and then we had some chains made by the Lebanon company. We were several miles behind and we had to catch up.

Mr. TALBOTT. Then you find from experience that the chains from the yards are superior to any other chain that you have been able to get.

Admiral COWLES. Yes.

Mr. ROBERTS. How did you get behind?

Admiral COWLES. I do not know; that was before my time.

Mr. ROBERTS. I think it was due to the large number of ships going into commission.

Admiral COWLES. It was due to the fact that they were building a lot of ships at one time and could not keep up; could not make chains fast enough. That is the only reasonable excuse.

Mr. LOUD. The chain that you use on battle ships costs about double the cost of chain used upon passenger ships?

Admiral COWLES. Yes; but it is not the same kind of chain. You would not want to travel around on a man-of-war using that kind of chain.

Mr. LOUD. But we travel upon passenger ships, and risk our lives there.

Admiral COWLES. But you do not anchor.

Mr. LOUD. Yes; we anchor, even in winter time. I know that we anchored when we were on the *Korea* and *Manchuria*, and we know the passenger ships have to anchor off Sandy Hook when waiting for the fog to lift, or for the tide.

Admiral COWLES. Yes; they drop anchor occasionally, but they do not have to make a flying moor, and do not anchor in a squadron, and in all kinds of weather. When passenger steamers anchor they have steam up and are ready to get under way in an instant, whereas in men-of-war fires are hauled in all except one boiler while in port.

Mr. LOUD. But the cost of your chains is about double, is it not?

Admiral COWLES. No; I would not call it a double cost. The Lebanon Chain Works made the chain cables for the *Great Northern* steamships of $3\frac{1}{8}$ inches for 5.43 cents per pound, whereas recently chain of $2\frac{1}{4}$ inches has been made at the Boston yard for 8.52 cents per pound. It is believed that the navy $2\frac{1}{4}$ -inch chain would equal, if not surpass, the $3\frac{1}{8}$ -inch commercial chain in strength and durability. Merchant vessels have larger chain for the same displacement than men-of-war. Our largest chain cables are $2\frac{1}{4}$ inches in diameter.

Mr. LOUD. But not as large as the *Manchuria's* chain?

Admiral COWLES. No, of course; and it is not made out of scrap. The *Manchuria's* chain is much heavier, being $3\frac{1}{4}$ inches in diameter, and they can carry the weight. We can not carry so much weight.

Mr. LOUD. Then the *Manchuria's* chains are heavier, I understand you to say.

Admiral COWLES. Yes; our chains are lighter and stronger.

Mr. ROBERTS. That is, they have to be made of iron of greater strength when they are made lighter?

Admiral COWLES. Yes.

Mr. LOUD. But the same argument would apply to the fast passenger steamers because they have to carry the weight, and it amounts to the same thing as paying freight on it.

Admiral COWLES. But it does not amount to the same thing, for every pound of weight that you put upon a man-of-war that is not necessary counts against her efficiency and adds to the amount of coal that she burns and puts her down in the water. That argument will hold good when you increase the size of her chain; and if we purchase the chains that you want us to, we would have to increase their size and weight.

Mr. LOUD. The *Manchuria* man will argue the same way you are arguing—along the same lines.

Admiral COWLES. Only he has bigger chains.

Mr. LOUD. Not to any great extent. He has big ships, and yet he likes small chains and lighter chains.

Admiral COWLES. But they do not put their chains to the same use. A chain on board a man-of-war must absolutely be relied upon.

Mr. LOUD. And the same upon a passenger ship?

Admiral COWLES. No; I do not think so, because they are towed right alongside the dock.

Mr. LOUD. Sometimes they are and sometimes not.

Admiral COWLES. I am talking about the common practice.

Mr. LOUD. But the chains and anchors are placed on passenger ships to avoid every emergency and stress and all that, and in the expectation of great strain.

Admiral COWLES. If they did that they would use this expensive ore.

Mr. LOUD. Is not this ore, excepting a small fraction of it, ore that is not obtainable in the United States, and would it not be impossible to secure that kind of iron to make chains?

Admiral COWLES. If the commercial needs were for it, you would get just as much as you wanted.

Mr. LOUD. I think that if you will investigate you will find that that is questionable, because the supply of that ore is so limited that it can not be obtained.

The CHAIRMAN. Will you please put in a comparative statement showing the cost of the Government manufacture of anchors and chains, and same as to the private manufacture, as well as the cost to the Government of each class of chain. Of course there will be a difference.

Admiral COWLES. Yes.

Mr. LOUD. I wish you would make your statement similar to those issued in former years by your Bureau, but giving more fully the details given in previous report.

Admiral COWLES. Yes.

Cost to manufacture anchors at navy-yard, Boston, Mass.

Forged anchor, navy type.		Private make.
Weight.	Per pound.	
400 pounds.....	\$0.288	} 5½ to 8 cents, forged, rough finish.
700 pounds.....	.190	
1,000 pounds.....	.183	} 6 to 8½ cents, forged, rough finish.
2,000 pounds.....	.206	
3,000 pounds.....	.187	
4,000 pounds.....	.185	
6,000 pounds.....	.183	} \$0.068 } patent cast-steel anchors.
12,000 pounds.....	.153	
14,500 pounds.....	.151	
17,500 pounds.....	.142	

Cost to manufacture chain cable at navy-yard, Boston.

Size.	Per pound.	Size.	Per pound.
2½-inch.....	\$0.098	1½-inch.....	\$0.142
2½-inch.....	.098	1½-inch.....	.121
2½-inch.....	.099	1-inch.....	.133
2½-inch.....	.105	¾-inch.....	.156
1¾-inch.....	.103	¾-inch.....	.174
1½-inch.....	.112		

Private made chain not complete in accordance with the specifications, but meeting test as to strength, 9½ cents. The Monongahela Iron and Steel Company have a contract for four chain cables, 2½-inch, at 8½ cents, but none of the cable has been delivered.

Mr. ROBERTS. I think you said, Admiral, that, with regard to this chain that you bought by contract, you had to supply particular parts by your own manufacture.

Admiral COWLES. They could not make the jewsharp, shackles, club links, and swivels.

Mr. ROBERTS. Do you not think that private concerns have tried to make them, and have been unable to do so?

Admiral COWLES. I think so. They got one of our men in the Boston yard to do it, but the others failed.

Mr. LOUD. In what place?

Admiral COWLES. Monongahela Iron and Steel Company.

Mr. LOUD. That is one particular yard that undertook to make it and could not, but that does not apply to all concerns. How many cables did the Monongahela concern make, and how many did the other concerns make—that is, complete and furnished?

Admiral COWLES. The Monongahela Iron and Steel Company got the contract to make 4 chain cables 2½-inch, each 120 fathoms long, and the Lebanon Chain Works made 21 chain cables 2½-inch, each 120 fathoms long.

CHAIN-MAKING MACHINES.

The CHAIRMAN. Chain-making machines. For the purchase of 3 Lelong chain-making machines, \$100,000. What is the necessity for these?

Admiral COWLES. They make chains a great deal quicker and consequently cheaper. I have a description here of the Lelong chain-making machine and I will put it in.

Mr. LOUD. It brings the manufacture of chains more up to date?

Admiral COWLES. Yes; they can probably make chains four times as fast as they can with the present method.

DESCRIPTION OF THE LELONG CHAIN-MAKING MACHINES.

The Lelong machine is made up of a pedestal surmounted by an anvil, which has three vertical cylinders projecting above its face, these cylinders being controlled by a mechanism located in the pedestal.

Over the anvil is a hinged cap containing two cylinders, one to form the inner side of link and the other acts as a mold for the outer side of link.

Two hydraulic cylinders erected above the anvil work the hydraulic pistons, whose heads are fitted with suitable molds to strike upon the link.

The cap is lifted as soon as the link bolt is drawn into place, then the link is forged by the hydraulic pistons. The forged link is circular in shape and is properly shaped and studded by auxiliary attachments to the machine.

This machine is primarily intended to make links from spiral bars, but bolts such as are now used for hand-made links can be worked, which method it is intended to adopt at the Boston yard.

Mr. ROBERTS. Admiral, last summer when the committee were at the Boston yard, we were shown some machines that I understood were devised by some of the men in your Bureau.

Admiral COWLES. Yes; Commander Parmenter. That is one reason why we are making chains cheaper there, but they are only made link by link. Of course the Lelong machine makes the chain very much more rapidly than his machine.

Mr. ROBERTS. If you get the Lelong machines, would you make any further use of those machines that you are working up there now, those that we saw last summer?

Admiral COWLES. Yes; I think we could use them all.

Mr. ROBERTS. In case you did not get the Lelong machines would you go ahead and perfect those machines that you have up there and that I understand were in a somewhat imperfect condition—some defects.

Admiral COWLES. Yes; we would. It would cost about \$20,000 more.

Mr. ROBERTS. For instance, one of these machines is operated by hand power, and they told us that they designed to use steam or electric power. You say that those machines are making the chains cheaper than they have been made.

Admiral COWLES. Yes.

Mr. ROBERTS. In reading this correspondence on page 38 I see a statement of Mr. A. C. Wrenn, Acting Chief of the Bureau of Equipment, that it costs about \$20,000 each to manufacture these Lelong machines.

Admiral COWLES. Well, they charge \$100,000 for them, because they expect us to pay the royalty—that is, they can not afford to sell them without it, and we can not pay royalty as the Government does not allow us to do that.

Mr. ROBERTS. Then they charge you the actual cost to them?

Admiral COWLES. Yes.

Mr. ROBERTS. Then if I understand this language on page 37 it means that you can get the three machines for \$100,000 and that they cost \$20,000. In other words, the cost to the Government is \$60,000, and there is a charge of \$40,000 extra in lieu of royalties.

Admiral COWLES. I do not think the actual cost of the machines is more than \$20,000, the balance being for royalties.

Mr. ROBERTS. What do you estimate will be the actual cost of these machines to the Government, \$60,000 or \$100,000?

Admiral COWLES. \$100,000.

Mr. ROBERTS. That is, you figure the duties, and the settling up, and all that.

Admiral COWLES. Yes; we would have to pay duty on actual cost as per invoice.

Mr. LOUD. In your report, at page 8—you have the report before you—there is given the amount of material and production in anchors and chains, etc. I wish you would turn back to page 6, and I would like to ask regarding the charge for general maintenance in those first two items—if that general administrative cost has been spread upon the output or not.

Admiral COWLES. Oh, yes.

Mr. LOUD. There is \$200,000 in these two items.

Admiral COWLES. Yes; but instead of charging 3.9 cents a pound for iron they charge 7 cents, covering the cost of rolling-mill labor, fuel for forges, and pro ratio of superintendence and coal for electric power for mill motors, and air blast for furnaces.

Mr. OLCOTT. How much will the chain cost altogether?

Admiral COWLES. About 8½ cents, when made with the machines recently installed.

Mr. LOUD. On page 8 of your report, if you divide the number of pounds of chain produced by the cost, it will figure out 10½ cents on the average.

Admiral COWLES. The cost of manufacture of chains has been materially reduced since the installation of various machines designed by Commander H. E. Parmenter, U. S. Navy, at the Boston Navy-Yard. Previous to this fiscal year the lowest cost of 2½-inch chain cable was 9.45 cents per pound, but recently 2½-inch chain has been made at 8.52 cents per pound, although the pay of chain helpers has been increased 8 cents a day prior to the manufacture of the last lot of 2½-inch chain.

Mr. LOUD. What makes the difference in the cost of production as given on pages 8 and 6? On page 8 the production is given as \$145,000 and on page 6 the amount is \$283,000.

Admiral COWLES. On page 8 the item \$145,054.05 represents the cost of chain manufactured during the year, whereas on page 6 the item \$283,617.02 represents the cost of chain expended during the year.

Mr. PADGETT. Did I understand, Admiral, that these three machines, the Lelong machines, were estimated to cost the Government \$100,000; and in addition the Government, out of another fund, would pay the import duties?

Admiral COWLES. We would do it if we had to. We can not always tell whether we can get anything in free of duty or not. Sometimes, as a technical bureau for experimental purposes, we can.

Mr. PADGETT. But if you did not get them in, you have to pay the duties out of some other fund?

Admiral COWLES. Yes, sir.

Mr. ROBERTS. Will these three machines be for making chain of the same size, or of different sizes?

Admiral COWLES. Of all sizes.

Mr. ROBERTS. That is, one machine is adaptable to different sized chains?

Admiral COWLES. Yes; there are three machines, all making chain of different size.

Mr. ROBERTS. Then one machine makes a single size and can not make another size?

Admiral COWLES. They have certain limits.

Mr. LOUD. A machine may make 2-inch chain, and perhaps 2½-inch chain, but not much greater leeway than that either way?

Admiral COWLES. Yes.

EQUIPMENT MACHINERY PLANTS.

The CHAIRMAN. Equipment of machinery plants; for the purchase and installation of necessary machinery and tools, etc., \$150,000, in the buildings at Charleston, New Orleans, and Pensacola. Have we a new equipment building at Charleston?

Admiral COWLES. We have, and we want to put the tools there.

General requirements of machinery and tools for an equipment building similar to those erected at Charleston, New Orleans, and Pensacola could be made at an estimated cost of \$50,000 each, including equipments in the following departments:

Electrical workshop, installation, including lathes, planers, chucks, vises, scales, gasoline, torches, automatic crane, carborundum and emery wheels, shapers, punches, shears, pipe machine, drills, grinders, milling machine, sensitive drill, engraving machine, arbor press, drills, taps, accessories tools, pulleys, shafting, hangers, brackets, piping, etc.....	\$32, 250
Testing plate, installation, including steam and exhaust piping, separator, steam trap, switchboard, panel boards, instruments and tools for testing general sets.....	2, 200
Power house, installation, including boilers, condenser, pumps, valves, grease extractor, steam trap, pressure regulator, tools, etc. (see "Note" below)...	7, 000
Cleaning, plating, and buffing rooms, installation, including polishing and buffing lathes, acid tanks, rinsing tanks, electrolytic tanks, kettles, pots, dipping baskets, drying box, tools, etc.....	1, 050
Laboratory, installation, including ammeters, voltmeters, ohmmeters, potentiometer, galvanometer, photometer, ground detector, scales, instruments, etc.....	1, 650
Pattern shop, installation, including band saw, circular saw, jointing and facing machine, jig saw, revolving mandrel frame saw bench, hollow spindle lathe, saw-filing machine, miter-trimming machine, chisels, gouges, bits, countersinks, punches, clamps, squares, planes, dividers, rules, tools, etc.	1, 600
Chain and anchor repair shop, installation, including blacksmith's forge, anvil, swage block and mandrel, swages, chisels, fullers, heading tools, punches, sledges, hammers, etc.....	300
Rigging loft, installation, including rigging screws, mauls, mallets, marline spikes, clamps, commanders, axes, hatchets, pliers, fids, benches, etc.....	1, 200
Sail loft and flag room, installation including cutting and measuring table, benches, cutters, dies, canvas-testing machine, sewing machines, mallets, stencils, palms, needles, steel tapes, scales, etc.....	800
Drafting and blueprint rooms, installation including adjustable drawing tables, desk, stools, small drawing boards, curves, triangles, T-squares, blueprint machine, washing tank, etc.....	750
Offices, installation including desks, chairs, tables, file cases, book stands, etc.	1, 200
	<hr/> 50, 000

NOTE.—The power-house installation would only be required in case the facilities for supplying steam from the central power plant prove to be inadequate. Under ordinary circumstances the estimated sum of \$7,000 would not be needed.

Mr. ROBERTS. The Admiral speaks of a power plant. Is there not a central power plant in all of these buildings?

Admiral COWLES. Yes, sir; the electric power is furnished from a central power plant, but what is desired is steam power for testing generating sets.

Mr. ROBERTS. And would you not get that power direct from that?

Admiral COWLES. Yes, if the steam could be brought from such a great distance economically.

COAL AND TRANSPORTATION.

The CHAIRMAN. Purchase of coal and other fuel for steamers and ship use, and other equipment purposes, including expenses of transportation, storage, and handling the same, and for the general maintenance of naval coaling depots and coaling plants, \$5,000,000, which is an increase of \$850,000 over last year. What is the necessity for that increase?

Admiral COWLES. Prior to the fiscal year 1902 the purchase of steaming coal for ships, and all expenses connected therewith, were borne by the appropriation "Equipment of vessels." In granting an appropriation for 1902, Congress for the first time made special separate provision for the purchase of coal for naval purposes. The text of the provision reads:

Coal, Bureau of Equipment, 1902. For purchase of coal for steamers' and ships' use, including expenses of transportation and handling the same, two million dollars. (Naval act, March 3, 1901.)

This sum of \$2,000,000 proved inadequate for the purpose intended, and a deficiency was created which was covered by an urgent deficiency appropriation for coal and transportation (act of February 14, 1902) amounting to \$800,000, bringing the total amount of that appropriation up to \$2,800,000.

The number of naval ships in commission at this time (1902) depending solely on steam for motive power were comparatively few, and the vessels themselves were as a rule of moderate tonnage and speed, conditions which lend themselves to economy in coal. A comparison of the number and kind of ships of the fleet in commission in 1902 and in 1907, indicates plainly the reasons for increase of coal consumption since that date, and demonstrates the certainty that in the future, as the older and smaller vessels of the fleet are replaced by the larger ships, further increase in coal consumption may be expected. The battle ships and cruisers in commission in the fleet are the principal coal consumers. Destroyers, torpedo boats, and monitors are not continuously cruising. Gunboats, colliers, and auxiliaries are economical ships.

	1902.	1907.
Battle ships.....	7	16
Armored cruisers.....		6
Cruisers:		
First class.....	2	3
Second class.....	7	3
Third class.....	4	9

The coal consumption of ships increases with the displacement tonnage.

The battle ships in commission in fleet in 1902 numbered 7, having a displacement tonnage of 78,066 tons, while the battle ships in fleet in 1907 numbered 16, with a displacement of 232,146 tons, three times as great.

The tonnage of the armored cruiser squadron of 1907, consisting of 6 ships (83,720 tons), exceeds the tonnage of the 7 battle ships in fleet in 1902 and consumes more coal in traversing the same distance, each using economical speed. A comparison between the armored cruiser of the 1907 fleet and the battle ship of 1902, each at economical speed, shows that the cruiser traverses approximately from 1.88 to 2 knots per ton of coal consumed, while the battle ship of the 1902 fleet traversed approximately from 2.4 to 3 knots per ton of coal. The cruiser of 1907 therefore burns approximately 33 per cent more coal than the battle ship of the 1902 fleet in steaming the same distance.

An examination of the following tabulation of expenditures under "Coal and transportation" for the fiscal years during which that appropriation has existed (1902 to 1908) shows a gradual increase as the fleet has been added to. It is worthy of note that during these seven years the battle ships and armored cruisers in the fleet have quadrupled in number and increased in size, whereas the coal expenditure has barely doubled, and the appropriation for the purchase of coal has been increased only 50 per cent. Other craft, such as gunboats, monitors, colliers, and auxiliaries, have increased in number and consequently increased the coal expenditures to a slight extent:

Appropriations and expenditures for coal.

Appropriated for fiscal year 1902:	
Regular naval bill, act of March 3, 1901.....	\$2,000,000.00
Urgent deficiency, act of February 14, 1902.....	800,000.00
Total.....	2,800,000.00
Expended.....	2,365,731.48
Balance (to surplus fund).....	434,268.52
Appropriated for fiscal year 1903:	
Regular naval bill, act of July 1, 1902.....	2,500,000.00
Expended.....	2,484,034.69
Balance (to surplus fund).....	15,965.31
Appropriated for fiscal year 1904:	
Regular naval bill, act of March 3, 1903.....	2,500,000.00
Deficiency, act of April 27, 1904.....	190,000.00
Total.....	2,690,000.00
Expended.....	2,669,877.61
Balance (to surplus fund).....	20,122.39
Appropriated for fiscal year 1905:	
Regular naval bill, act of April 27, 1904.....	2,750,000.00
Deficiency, act of February 27, 1906.....	210,000.00
Total.....	2,960,000.00
Expended.....	2,950,076.81
Balance available.....	9,923.19

Appropriated for fiscal year 1906:	
Regular naval bill, act of March 3, 1905.....	\$2, 750, 000. 00
Deficiency, act of February 27, 1906.....	500, 000. 00
Total.....	3, 250, 000. 00
Expended.....	2, 821, 950. 18
Balance available.....	428, 049. 82
Appropriated for fiscal year 1907:	
Regular naval bill, act of June 27, 1906.....	3, 750, 000. 00
Expended.....	3, 678, 736. 59
Balance available.....	71, 263. 41
Appropriated for fiscal year 1908:	
Regular naval bill, act of March 2, 1907.....	4, 150, 000. 00
Obligated.....	4, 402, 167. 74
Over obligated.....	252, 167. 74

Another reason for increased expense for "Coal and transportation" is found in the increased number of purposes to which the appropriation is applied, as follows:

When providing for the purchase of coal for the fiscal year 1903 the wording of the act was changed from that of 1902 so as to admit of the use of the appropriation for "other equipment purposes," including expense of transportation and handling. The other purposes were in connection with the handling.

In making appropriation for "Coal and transportation" for the fiscal year 1905 the act was drawn to permit of the purchase of oil fuel.

The appropriation act for "Coal and transportation" for the fiscal year 1906 was framed to provide not only for the purchase of coal and other fuel for steamers' and ships' use, but was made available for the general maintenance of naval coaling depots and coaling plants, which was necessary to their being properly kept up.

From the foregoing it is evident that the increased scope to which the appropriation "Coal and transportation" was applied necessitated increased expenditure of money.

A cause of considerable increase in the cost of coal is due to increased price of coal at the tidewater ports on the east coast of the United States, the price having risen from \$2.50 per ton in 1902 to \$3 and \$3.10 in 1907; this for coal from the same mines and obtained under like conditions.

The expenditures for coal and transportation during the present fiscal year, 1908, have been increased by the necessity for transporting large quantities of coal great distances to meet the exigencies due to the movement of the entire fleet of the United States to the waters of the Pacific.

To recapitulate in brief the reasons for increase in cost of purchasing, transporting, and handling coal for the United States Navy since 1902 and for requiring an increased appropriation under "Coal and transportation" for the fiscal year 1909:

(a) Increase in the number of purposes to which the appropriation is applied.

(b) Increase in the number of ships in commission.

(c) Increase in size of ships, and consequent coal consumption.

(d) Increase in the first cost of coal at tide water.

(e) Increase in freight rates due to transporting coal to greater distances than heretofore, because of the fleet going farther abroad.

The CHAIRMAN. Are you asking for a deficiency this year?

Admiral COWLES. Yes.

The CHAIRMAN. How much?

Admiral COWLES. A million dollars.

The CHAIRMAN. Is the extra cost in the coal item occasioned by sending the fleet to the Pacific?

Admiral COWLES. Just about that. We had to charter the necessary transportation and we had to buy all of our coal in advance.

The CHAIRMAN. Please tell us about the contract that was made for coal for the fleet.

Admiral COWLES. We made contracts for transporting the coal to supply the fleet at Trinidad, Rio de Janeiro, Punta Arenas, Callao, Magdalena Bay, and San Francisco. It cost to ship to Trinidad \$1.74; to Rio de Janeiro, \$3.10; to Punta Arenas, \$4.80 and \$4.84; to Callao, \$6.09; to Magdalena Bay, \$6.50 and \$6.635; and to San Francisco, \$6.15.

The CHAIRMAN. What was the total number of tons shipped all told?

Admiral COWLES. We will ship in all about 180,000 tons. The coal cost an average of about \$3.05 per ton. The cost for transporting it I have given above.

The CHAIRMAN. Is it Pocahontas coal?

Admiral COWLES. Some Pocahontas, some New River, some Georges Creek, and some Pennsylvania coal.

Mr. LOUD. You have had some difficulty in getting all of it first grade Pocahontas coal, did you not?

Admiral COWLES. We anticipated encountering considerable difficulty in obtaining sufficient coal of first quality, but owing to various conditions affecting the coal trade our anticipations were not realized, though at the time there was every reason to cause us to anticipate these difficulties.

Mr. LOUD. Did you use any briquettes?

Admiral COWLES. We used some.

Mr. LOUD. What did they cost?

Admiral COWLES. We did not buy any, but experimented with them.

The CHAIRMAN. Was this coal delivered on board ship?

Admiral COWLES. It is to be delivered alongside the ships by colliers and taken on board by the crews of the respective ships.

The CHAIRMAN. At what point?

Admiral COWLES. At Trinidad, Rio de Janeiro, Punta Arenas, Callao, Magdalena Bay, and San Francisco. We have shipped a great deal of coal to Honolulu and to Puget Sound, and of course to San Francisco. We have a coaling station at Honolulu. We have also shipped considerable coal to Manila and to Yokohama.

Mr. ROBERTS. This is in addition to the 180,000 tons referred to?

Admiral COWLES. Yes. During the fiscal year we have shipped coal to the distant coaling stations of the Navy as follows:

	Tons.
Manila.....	114,000
Honolulu.....	53,000
Mare Island.....	66,000
Puget Sound.....	41,000
Sitka.....	5,000
Pichilique Bay.....	5,000
Yokohama.....	6,000

Some part of the transportation of these quantities was engaged during the past fiscal year and paid out of its appropriations. Transportation for the bulk of it, however, was engaged during the present fiscal year and paid out of the appropriations of this fiscal year. All of the coal shipped was taken from contracts made during the current fiscal year and paid from the appropriation of this fiscal year.

The CHAIRMAN. Please tell us about the shipment of this coal. In what vessels?

Admiral COWLES. Most in steamers of foreign register. American steamers have not been available. All American sailing ships that have been obtainable have been chartered. There are now five sailing ships bound to Honolulu with coal for the Navy Department and one to Puget Sound. The 180,000 tons of coal for coaling the fleet on its voyage referred to above is all to be transported in foreign steamships, except 30,800 tons which was transported in navy colliers. The only American steamer that could be obtained after considerable effort on the part of the Bureau was the *Virginian*, which is now en route to Mare Island with 9,000 tons of coal, her position being such as to render it impracticable to use her in coaling the fleet. Several American steamers were offered to the Bureau on time charter at the same time the *Virginian* was offered, but a fair estimate of the cost per ton to ship coal under these conditions would be \$15.

The CHAIRMAN. What I want to get at is whether the opportunity was given to American owners of vessels to freight this coal, and how many?

Admiral COWLES. Proposals were advertised for extensively in coal, shipping and daily papers throughout the United States on September 9 and subsequently, proposals being opened on September 24, 1907. Offers were requested for transportation in American bottoms. Offers were also requested for transportation in foreign bottoms; and for Welsh coal delivered at the various ports. Copies of these proposals are attached, marked, respectively, "A" and "B."

The American vessels offered at the time were as follows:

Offered by—	Ship.	Capacity.	Rate.
American-Hawaiian Steamship Co.....	Virginian.....	Tons. 9,000	\$8.
Edgar Luckenbach.....	Lewis Luckenbach.....	5,000	Timecharter.
	J. L. Luckenbach.....	5,000	
	Success.....	3,000	
	Everett.....	6,800	
New England Coal and Coke Co.....	Melrose.....	6,800	\$13.50.
	Malden.....	6,800	
	Lyra.....	4,000	
Boston Tow Boat Co.....	Hyades.....	4,000	Timecharter.
	Pielades.....	4,000	

In addition to the above-mentioned vessels two small sailing vessels were offered at \$8 per ton, and these, of course, were not considered suitable for the purpose. The *Virginian* was accepted and is now en route, and the owners of the other steamers offered were, by direction of the President, offered a rate equal to 50 per cent greater than the lowest rate offered for the same port for foreign ships. As the lowest rate offered for foreign ships to Mare Island was \$6.15, it will be seen that the original offer of the *Virginian* was somewhat less than this rate plus 50 per cent. The owners of the Luckenbach boats declined to consider a "per ton" rate, while the owners of the New England Coal and Coke Company, after much delay and effort to reduce their bid, finally agreed to accept \$11.50 per ton, for at least one of their ships. The ships offered by the Boston Tow Boat Company were all on the Pacific coast, and in reply to the offer to pay them 50 per cent increase over the lowest rate offered for foreign ships, they expressed their inability to obtain a cargo on the Pacific coast to bring their boats to the east coast. It is understood that at least one of their boats is now on a voyage from the Pacific coast to the east coast, having obtained a cargo of grain.

Mr. LOUD. What is meant by "time charter?"

Admiral COWLES. Time charter means a charter at a given rate for a specified time.

The CHAIRMAN. How many tons are being carried by American vessels?

Admiral COWLES. One American steamer was chartered, the *Virginian*, and she is now bound to Mare Island with 9,404 tons of coal.

The CHAIRMAN. I understand that some of them did accept this 50 per cent?

Admiral COWLES. No. The offer of the *Virginian*, i. e., \$8 per ton, was at a rate less than that offered the other American vessels, but it was all that was asked by her owners originally.

Mr. ROBERTS. The *Virginian* accepted the price of \$8?

Admiral COWLES. Yes. The others said they could not afford to do it; that they wanted more.

Mr. ROBERTS. Were there enough American bottoms to transport all of this coal?

Admiral COWLES. No; there were not.

Mr. ROBERTS. What proportion could they transport?

Admiral COWLES. There were 10 American steam vessels, approximately 54,000 tons offered, and 180,000 tons were required. Assuming then that every vessel's sailing time could be so arranged as to accord with the movement of the fleet, they could have moved 30 per cent of the quantity. That this could not be done, however, is instanced by the fact that the only American ship offered and actually chartered, the *Virginian*, is ready practically a month ahead of the fleet, and some of the others were on the Pacific coast.

Mr. LOUD. Are the charters made from one cargo to another, or are they made for a period of time, a year, or several trips?

Admiral COWLES. No; we advertised for transportation for a stated quantity of coal to the different ports the fleet would call.

Mr. LOUDENSLAGER. What particular amounts, and what particular times, did you make your contracts for; so many thousand tons at a given time?

Admiral COWLES. Yes; the various amounts to be transported and the approximate date for colliers to sail are stated in the attached

proposal for transporting coal for the Atlantic Fleet, marked "A," and contracts were made accordingly.

Mr. LOUDENSLAGER. What about the shipments to Manila?

Admiral COWLES. We have shipped to Manila; we have there now over 100,000 tons in store. On December 1 we had 86,000 tons, and there was en route 11 steamers. That would make, when they all get there, 153,000 tons, and deducting the amount that will probably be used by the time the last ship gets in, about February 15, say 20,000 tons, we will then have 133,000 tons.

The CHAIRMAN. Is that American coal?

Admiral COWLES. Every bit of it.

The CHAIRMAN. And being shipped in foreign bottoms?

Admiral COWLES. Yes, sir.

Mr. LOUDENSLAGER. What was your balance of coal on hand December, 1906?

Admiral COWLES. Seventy-seven thousand tons.

Mr. LOUDENSLAGER. I understand; but now there are 86,000 tons on hand there?

Admiral COWLES. When the fleet gets out there they will want this coal.

Mr. LOUDENSLAGER. Are they going to Manila?

Admiral COWLES. Oh, yes; arrangements have to be made to give coal to all the fleet at the principal coaling stations.

Mr. LOUDENSLAGER. My inquiry related especially to the coal that is on hand at Manila, and the amount that has been transported from the Atlantic coast to Manila during 1907. What kind of contracts did you make for the transportation of that coal to Manila, so many thousand tons at a certain given time?

Admiral COWLES. Yes; as a rule we make contracts at one time for transportation of large quantities, but specify that the amount is to be shipped one or two cargoes each month so as to avoid congestion of boats at Cavite and consequent demurrage for detention. Sometimes, but very seldom, of late years, we have taken a single boat.

Mr. LOUDENSLAGER. And how long for delivery?

Admiral COWLES. I think about two cargoes a month, or about 10,000 tons a month.

Mr. LOUDENSLAGER. Is that the way your proposal reads?

Admiral COWLES. Our proposal reads: "Successful bidders will be required to state the names of the vessels to be used and the probable date of their reporting for cargo, which vessels and dates must be acceptable to the Bureau of Equipment, Navy Department." This paragraph was inserted in order that the Bureau might arrange the schedule of boats and sailing dates to suit itself.

Mr. LOUDENSLAGER. Is there any objection to your putting into your hearing a copy of your proposal?

Admiral COWLES. None at all. A copy is attached, marked "Appendix C."

Mr. LOUDENSLAGER. Also the date of it.

The CHAIRMAN. Will you also put in in that connection the names of the bidders, and the amounts for American and foreign vessels?

Admiral COWLES. Yes. It is appended, marked "D." Similar information relating to all shipments of coal to Cavite since the enactment of the law (Public, No. 198) entitled "An act to require the employment of vessels of the United States for public purposes,"

approved April 28, 1904, will be found in pamphlet No. 68, pages 451-461, "Hearing before the Committee on Naval Affairs," Fifty-ninth Congress, second session, 1906-1907.

Mr. LOUDENSLAGER. And any protests made against the manner of proposal, if there were any?

Admiral COWLES. There has been more or less objection on the part of American shipowners each time the Government has undertaken to employ foreign bottoms for transporting its coal, and this resulted in the enactment of the law requiring shipment of Government supplies in American bottoms unless prevented by certain contingencies. Since the enactment of the law referred to, however, it has not been practicable to carry out its intent for the reason that American vessels sufficient to transport the necessary amount of coal for the Navy have not been available, and foreign bottoms have of necessity been used. These protests have never amounted to anything, however, as the Bureau has always been able to show that vigorous efforts have been made to obtain the necessary American vessels. There was much protesting, however, when necessity arose to ship coal to Pacific coast ports of the United States in foreign bottoms.

Mr. LOUDENSLAGER. It was a general protest?

Admiral COWLES. It was confined exclusively to American shipowners or agents, or organizations representing such owners and controlled by them. The protest was based on the alleged violation of the coastwise shipping laws, so called, and the allegation that American vessels had been offered to the Navy Department and not accepted. This latter was shown not to be based on fact, however. The Attorney-General ruled that the action did not violate the coastwise shipping laws.

Mr. LOUDENSLAGER. I did not hear of anything along that line, but only as to the manner of entering into the contract for the transportation of the coal from the Atlantic coast to San Francisco and the Atlantic coast to Cavite.

Admiral COWLES. No protests were made as to the manner of entering into the contracts to the Bureau except generally against the use of foreign bottoms.

The CHAIRMAN. I also want you to put in the amounts in the American and foreign bottoms covering this coal to Manila, and also the price.

Admiral COWLES. The following statement shows the number of tons of coal shipped to Cavite from and including the fiscal year 1902 to date, the nationality and class of vessels used in its transportation, and the average rate paid for transporting it:

Year.	Nationality.	Number.	Class.	Number of tons.	Average rate.
1902.....	Foreign.....	21	Steamers.....	88,145.5	\$5.86
1903.....	do.....	10	do.....	41,985.5	4.77
1904.....	do.....	12	do.....	57,338.5	5.05
1905.....	do.....	17	do.....	85,837.5	4.80
	American.....	5	do.....	39,114.0	7.38
	Do.....	5	Sailing vessels..	19,396.0	6.50
1906.....	Foreign.....	3	Steamers.....	18,578.0	4.00
	American.....	8	Sailing vessels..	30,989.0	6.04
1907.....	Foreign.....	23	Steamers.....	142,139.5	4.54
1908.....	do.....	18	do.....	35,140.0	4.46

Since June 27, 1907, which is the date of the first contract for shipping coal to Pacific coast naval stations, including Honolulu, the following shipments have been made. Prior to that time these stations were supplied principally with Cardiff coal shipped from Wales in sailing vessels of various foreign nationalities. Some small quantities were sent in American sailing vessels when they have been obtainable:

Port.	Nationality.	Number.	Class.	Number of tons.	Average rate.
Honolulu.....	American.....	5	Sailing.....	20,076	\$6.25
Do.....	Foreign.....	6	Steamers.....	31,885	6.79
Mare Island.....	do.....	12	do.....	65,369	6.46
Puget Sound.....	do.....	6	do.....	32,876	6.38
Pichilique Bay.....	American.....	1	Sailing.....	3,129	7.00
Sitka.....	Foreign.....	1	Steamer.....	5,163	7.35
	do.....	1	do.....	4,985	7.60

Mr. LOUD. Has any objection been made by the Department to combine the incoming freight from Manila and the outgoing coal, making a lessening of cost?

Admiral COWLES. No objection has been made by the Department to such an arrangement, nor would any be made to that or any other arrangement that would be of assistance to the American shipowner and at the same time facilitate getting the Government's coal out to its stations at reasonable rates. It is presumed you mean for the Government to arrange to return its own freight. As a general proposition such a scheme is entirely impracticable. We need coal in much greater quantities than the available American ships can transport it; we must therefore take these ships as they become available and they must keep moving to make money. If by chance they can arrange a return cargo, of course the owners will lose no time in doing it, and that is what the owners claim they can not do, get return cargoes. They can and do get sugar cargoes from Honolulu, and that is the reason they prefer to go there. We now have five or six American sailing vessels outbound to Honolulu.

Mr. LOUD. There is about an equal amount of freight moving both ways, I suppose?

Admiral COWLES. Not so far as the Government is concerned, and the Government could not well enter into the general shipping business in order to provide return cargoes for commercial vessels carrying Government coal, and even if it could do so it could not possibly do so with any advantage to itself, nor to the ship, as trained shipping people could unquestionably make more advantageous arrangements than Government agents.

Mr. LOUD. I had reference only to the general handling of coal out there. Is there any objection to the combination?

Admiral COWLES. As stated, there could be no objection; in fact, this is exactly what is done commercially. A vessel will always take the most advantageous proposition offered, and the cargo to be obtained at destination either to return her or to carry her farther on is a great factor in determining what is the most advantageous voyage. It must be at once apparent that if people who have been trained in the shipping business all their lives and are thoroughly posted on all the details involved in commercial shipping are unable

to effect a combination of cargoes to produce low rates, the Government can by no means effect it.

Mr. ROBERTS. Do you not use enough hemp in the Boston yard in the course of a year to work it in?

Admiral COWLES. The purchases of Manila hemp for use at the navy-yard, Boston, amounted to about 300 tons during the fiscal year 1905, 350 tons during the fiscal year 1906, and 800 tons during the fiscal year 1907. We shipped to Manila during those years—1905, 144,000 tons of coal; 1906, 50,000 tons, and 1907, 142,139 tons. Furthermore, it is a difficult matter to obtain hemp of suitable quality in the manner it is now purchased—that is, by advertisement—and in accordance with Government specifications, with all the facilities available for its inspection, test, etc. In its annual report for the fiscal year 1906 the Bureau stated as follows: “Manila hemp of the quality used for naval purposes is still difficult to obtain and has continued to increase in cost during the year;” and in its report for the fiscal year 1907 it states, “the price of Manila hemp remains high and the supply of hemp of good quality is not equal to the demand.” The matter of purchasing hemp in the Philippine Islands and bringing it over in order to reduce expenses has been tried on more than one occasion. In 1900 some hemp was purchased and shipped to Boston in the collier *Scindia*. The quality of this hemp was far from satisfactory, and in 1902 some was purchased and shipped in the collier *Cæsar* and some in the *Arethusa*; in 1903 both the colliers *Ajix* and *Nero* brought over consignments; and in no instance, so far as the Bureau is aware, was this hemp up to the standard of quality set by the Navy Department and obtainable in the local hemp market.

Mr. LOUD. The amount of sugar and hemp coming from Manila is about equal to the amount of the annual consumption of coal going the other way, is it not?

Admiral COWLES. I am not informed as to the amount of sugar and hemp shipped from the Philippine Islands to the United States commercially. As previously stated, the amount of hemp used at the navy-yard, Boston, is comparatively insignificant as compared with the amount of coal shipped by the Navy Department to Cavite.

Mr. LOUD. Would not a private concern who had so large an amount of material to move home afford to combine so as to get a low rate of freight?

Admiral COWLES. A private concern would do exactly as the Government would do under similar circumstances—ship its coal under the most favorable conditions practicable and let the vessels carrying it look out for return cargoes. I am not informed as to the total number of tons of commodities brought from the Philippine Islands for the sole use of the various United States Government Departments. I have previously stated the relative quantity of Manila hemp used and the coal carried to Manila for the Navy. It is extremely doubtful as to whether a private shipper could under any circumstances do as well under the same conditions as the Navy Department does in the matter of freight rates, and it is a matter generally conceded among shipping people with whom the Bureau has had to deal that it has invariably obtained extremely low rates for its transportation.

Mr. HOBSON. With reference to the movements to Manila, was the coal destined to Cavite or Subig Bay?

Admiral COWLES. We have no coaling station at Subig Bay ready yet, and the coal is all taken to Cavite. As soon as the plant now under construction is ready we will fill it up with coal.

Mr. ROBERTS. Does that coal go in foreign bottoms?

Admiral COWLES. Yes, principally; and in American bottoms when they can be obtained.

Mr. ROBERTS. Do you know what bottoms carry the hemp and sugar that Mr. Loud has spoken of?

Admiral COWLES. I suppose the foreign bottoms bring it back, but I do not know about that. It is safe to assume this to be so, since that is one of the arguments put forth by American shipping as why it is necessary to charge high rates for the outgoing cargoes.

Mr. PADGETT. Are the coastwise laws between the United States and the Philippine Islands still under suspension, or are they in operation?

Admiral COWLES. Under suspension.

Mr. ROBERTS. I understood you to say that the Department does take advantage of a shipment of a return cargo from Manila in shipping a cargo of coal out?

Admiral COWLES. The Department does not, but the shipping man does. That is part of his business—to arrange return cargoes. It must be apparent that the Government under existing conditions could not, as at once the cry would go out that the Navy Department is engaging in the shipping business to the detriment of the interest of the American ship owner.

Mr. ROBERTS. Do they charge the same if they get no return cargo?

Admiral COWLES. They do not go unless reasonably sure they can get a return cargo in some direction.

Mr. ROBERTS. To some points, but perhaps not back here?

Admiral COWLES. They might get out there and deliver a cargo of coal to Manila, then put in ballast to Honolulu or some other port and bring sugar home, or some other commodity.

The CHAIRMAN. I wish you would put in the hearing a statement showing the expenditures under this item for coal transportation during the last fiscal year.

Admiral COWLES. The items of expenditure and the amounts expended for the fiscal year 1907 are as follows:

Coal and transportation, 1907.

Items of appropriation.	Dr.	Cr.
	Expenditures.	Appropriation.
Appropriation.....		\$3,750,000
Purchase of coal.....	\$900,967	
Transportation of coal.....	1,150,000	
Purchase of other fuel.....	20,000	
Discharging and handling coal.....	134,965	
Purchase of coal by ships cruising and miscellaneous expenses abroad.....	640,000	
Labor at navy-yards.....	165,430	
General maintenance of coaling depots and coaling plants, repairs, alterations, etc.....	664,843	
Total amount expended.....	3,603,205	
Balance.....	56,795	
	3,750,000	3,750,000

Mr. LOUDENSLAGER. Do you get many inquiries from the owners of American bottoms as to whether you would give them a cargo of coal out to Manila if they have contracts to bring back something, sugar or hemp?

Admiral COWLES. No; not many.

Mr. LOUDENSLAGER. They make no such inquiry of you?

Admiral COWLES. Very seldom. If any shipowner has a return cargo from Manila or other distant port and can not make better arrangements they will ask for a cargo of coal; but this seldom happens on account of the lack of return cargoes. They prefer to go to Honolulu, where sugar cargoes may be obtained, unless they can get a rate that will pay them to call at Manila first.

Mr. LOUDENSLAGER. There is no place where they could do it; that is, you do not advertise that you want coal transported there excepting when you ask for proposals?

Admiral COWLES. No. The matter of shipping coal by the Navy Department has been so extensively discussed and advertised that every American shipowner knows that his vessel if offered at a fair rate will be accepted.

Mr. LOUDENSLAGER. You shipped a certain amount of coal to Mare Island and to Puget Sound in foreign bottoms.

Admiral COWLES. Yes.

Mr. LOUDENSLAGER. Will you please give us the reasons why they went in foreign bottoms?

Admiral COWLES. Because the American ships could not be gotten to take it, and the small amount of American tonnage chartered was only had at a large rate.

Mr. LOUDENSLAGER. Well, the difference in price that you paid between the American bottoms that did carry the coal there and the foreign bottoms was very small, was it not?

Admiral COWLES. Two dollars a ton for steamers.

Mr. LOUDENSLAGER. I think, according to your report, if I read right, that it is only about 33 cents a ton to San Francisco.

Admiral COWLES. That is about the difference between the rate paid for a foreign steamer and an American sailing ship.

Mr. LOUDENSLAGER. Let me read: "Contracts were also made for the shipment of 50,000 tons to the navy-yard, Mare Island, at a cost for transportation of \$319,488.50, or an average of \$6.388 per ton. Of this, 28,308 tons were by American ships, at a cost of \$184,948.70, or an average of \$6.533, and 21,700 tons by foreign steamers (chartered by authority), costing for transportation \$134,540, an average of \$6.20 per ton." That would be a difference of 33 cents, or to Puget Sound there was a difference of 28 cents. Would you not consider that 33 cents and 28 cents are excessive prices?

Admiral COWLES. No; not at all. If we could ship coal in steamers at that price, we would ship it.

Mr. LOUDENSLAGER. Then these American bottoms are all sailing vessels?

Admiral COWLES. Yes. Whenever we get a steamer, it is \$8 a ton or more. We have at times offered American steamers \$8.50 per ton, only to have the offer declined. The average rate demanded by owners of American sailing vessels for shipments of coal from Atlantic coast ports to the Pacific coast, to Honolulu, and to Manila is \$6.50 per ton, though, unless the ship is going direct to Honolulu, concessions in the way of ballast are generally demanded, which makes the

rate equal to \$7 per ton. In addition to this rate we are required to pay for sailing vessels we have the attendant risk of loss of cargo and the great uncertainty as to the time of arrival. Within recent months out of four sailing vessels dispatched to the Pacific coast, one arrived without mishap; of the remaining three, one met with disaster and sunk; a second one met with disaster and sunk the ship with which she was in collision, resulting in long delay in delivery of the cargo and considerable additional cost to the Government in the matter of general average charges for repairs; the third one, a wooden sailing vessel, put in at Melbourne, Australia, in a leaking condition, and, after being delayed about two months at that port, proceeded on her voyage, only to run aground in San Francisco harbor in such a condition that it was necessary to lighter her cargo to the navy-yard, Mare Island. Much additional expense will be involved in the matter of general average and in the matter of transshipping this cargo. All of these conditions operate to make shipment in sailing vessels objectionable. At the same time, no opportunity has been lost to use them when available.

Mr. ROBERTS. I want to ask if any portion of this 170,000 tons of coal for the fleet is being carried in navy colliers?

Admiral COWLES. Yes, sir.

Mr. ROBERTS. How many colliers have you in service?

Admiral COWLES. We sent three colliers down to Trinidad and five more to Rio. To Trinidad we sent the collier *Hannibal*, 2,000 tons; *Leonidas*, 2,200 tons; *Marcellus*, 2,000 tons, and two chartered steamers—the *Fortuna*, 4,224 tons, and the *Athalie*, 2,287 tons—making in all 13,207 tons sent down there. Then to Rio we sent five naval colliers—the *Abarenda*, 3,200 tons; the *Ajax*, 5,000 tons; the *Brutus*, 3,800 tons; the *Cæsar*, 2,900 tons, and the *Nero*, 3,500 tons; also the chartered collier *Kassala*, 5,150 tons. Those colliers will go to Rio and then the Admiral is going to take one on with him, probably the *Ajax*, and he may take two. The others he will send back. Some of these will reload and proceed to the Pacific coast to meet the fleet and remain with it.

Mr. ROBERTS. That is, he takes his supply of coal right along?

Admiral COWLES. Yes; we are sending along a little more than we need, in case of accident.

Mr. ROBERTS. What is the cargo capacity of our largest collier?

Admiral COWLES. Five thousand tons.

Mr. ROBERTS. How many of those have we?

Admiral COWLES. The following is a list of the United States Navy colliers and their approximate carrying capacity:

	Tons.
Abarenda.....	3,500
Ajax.....	4,800
Alexander.....	4,300
Brutus.....	4,500
Cæsar.....	3,200
Hannibal.....	2,000
Justin.....	3,000
Lebanon.....	1,300
Leonidas.....	2,200
Marcellus.....	2,200
Nanshan.....	4,950
Nero.....	3,800
Pompey.....	3,085
Saturn.....	2,500
Sterling.....	2,350

Mr. ROBERTS. What is the capacity of the largest chartered collier that we have?

Admiral COWLES. The capacity of the largest collier we have chartered to coal the fleet is about 6,500 tons. The *Virginian* now en route to Mare Island is carrying approximately 9,500 tons.

Mr. ROBERTS. Have you anything in excess of 5,000 tons?

Admiral COWLES. We have the *Ellaline*, 5,449 tons; the *Jenara*, of 5,627 tons; the *Ripley*, of 5,073 tons; and the *Towergate*, of 5,116 tons, all chartered colliers for Punta Arenas. That would make 21,149 tons for that point.

Mr. OLCOTT. Are they foreign colliers?

Admiral COWLES. Foreign bottoms. We could not get American bottoms to carry even a part of this coal unless we paid them more than the President offered, which was about \$9 a ton. Then for Callao we chartered the collier *Hektor*, 5,600 tons; the *Hermiston*, of 5,392 tons; the *Earl of Douglass*, 5,361 tons; the *St. Andrews*, of 4,351 tons, and the *Falls of Orchy*, 5,714 tons, making a total of 26,418 tons for Callao. Then for Magdalena Bay we chartered the *Springburn*, 6,000 tons; the *Otterburn*, 6,000 tons; the *Strathray*, 6,000 tons; the *Needles*, 6,700 tons; the *Baron Ardrossan*, 6,000 tons; the *Falls of Moness*, 6,000 tons; and the *Earl of Carrick*, 6,700 tons, making a total of 43,400 tons for Magdalena Bay.

Mr. ROBERTS. Then 6,700 tons seems to be the largest commercial collier that you can get?

Admiral COWLES. No. Larger ones are available, but we prefer colliers of about 5,000 tons capacity, or even smaller, for coaling a fleet. For San Francisco we chartered the *Cape Finisterre*, 6,500 tons; the *Agapanthus*, 5,000 tons; and six other colliers of 5,000 and 6,000 tons, making a total of 45,000 tons for San Francisco, or in all a total of about 180,000 tons.

Mr. DAWSON. Are you using any Philippine Island coal in the Navy?

Admiral COWLES. No.

Mr. DAWSON. Have you examined that?

Admiral COWLES. We have tried it and made examinations. They haven't any good coal out there. They have coal in Borneo, but it is the same as Philippine coal.

Mr. DAWSON. Are the Government deposits of coal in the Philippine Islands being developed?

Admiral COWLES. I understand that the insular government is taking steps to develop them.

Mr. DAWSON. The legislation came up in Congress, and they asked us for an appropriation to buy a strip of land between Columbus and the sea, in order to get coal to tide water, representing that that coal would be suitable for the use of the Navy. Has that ever been investigated?

Admiral COWLES. We never investigated it. We have tried all the coal that they sent us and have not found any that is good. It is of a poor grade.

Mr. DAWSON. Is there anything needed on the part of Congress in order to secure the cooperation of the Navy and the War Departments in an investigation of the subject; do you need any legislation in order to do that?

Admiral COWLES. I should think we would need some money.

Mr. DAWSON. These coal deposits in the Philippine Islands are under the jurisdiction of the War Department, as I understand it.

Admiral COWLES. I should say the insular government.

Mr. DAWSON. What steps would be necessary in order to secure the cooperation of the Navy and the War Departments in going to the bottom of that coal question? If we have coal suitable for the Navy it is absolute folly for us to be paying transportation on coal clear across.

Admiral COWLES. If we had it; yes.

Mr. LOUDENSLAGER. They say they have tried it.

Mr. DAWSON. Have you tested the Government deposit thoroughly enough to know that there is no hope in that direction?

Admiral COWLES. If there is any good coal out there, I think we would have been using it long before now; that would be natural.

Mr. DAWSON. Providing you could get it. But I can see where a situation might arise, if the jurisdiction were divided between two departments, or where the coal might be in the hands of the War Department, and the Navy could not get hold of it.

Admiral COWLES. I think that if the War Department had any coal there would be no trouble about our getting it.

Mr. DAWSON. But I wanted to find out whether it has been demonstrated that the coal is suitable for naval purposes, that is all.

Admiral COWLES. I do not think it is.

Mr. OLCOTT. How is it that you haven't any of it?

Admiral COWLES. From time to time, whenever we get a chance, we test it; but I do not know of any having been tried lately; I do not know of any having been offered.

Mr. ROBERTS. In connection with the bill before the committee for the purchase of some colliers, do you know anything about that?

Admiral COWLES. I wish they would buy the colliers.

Mr. ROBERTS. Have you present need for them?

Admiral COWLES. We have. We would like to load them with coal and send them right out, instead of chartering the foreign bottoms.

Mr. ROBERTS. Those colliers carry 7,200 tons.

Admiral COWLES. Seven thousand tons.

Mr. DAWSON. How does the Philippine coal compare with the Japanese coal?

Admiral COWLES. It is not nearly as good as the best Japanese coal. The Japanese coal is not good excepting a certain kind which is not obtainable in the market.

Mr. PADGETT. Can we buy suitable coal in Japan?

Admiral COWLES. We have 8,000 tons of our own coal in Yokohama, but I do not think we could buy their best coal.

Mr. PADGETT. As a general proposition could we buy it there instead of transporting it?

Admiral COWLES. No; I think not.

Mr. PADGETT. How about the Welsh coal?

Admiral COWLES. The Welsh coal now costs much more than our own coal shipped in foreign bottoms, and more than our own coal in American bottoms. Formerly Welsh coal was the cheapest good coal obtainable on the Pacific coast and in the Pacific Islands. Just prior to the time of the contemplated movement of the fleet the price of Welsh coal was advanced to such an extent as to make it cheaper to

ship American coal in American ships, if such had been obtainable, and much cheaper to ship American coal in foreign bottoms. It is better to use American coal shipped in foreign bottoms than it is to use English coal shipped in foreign bottoms, especially when American coal is cheaper.

Mr. THOMAS. I have some information from a mining engineer to the effect that there is some very good coal in China, and I was wondering if it is being developed.

Admiral COWLES. They say there is good coal in China. An agent for that coal came in the Bureau the other day and said that that they had an agency in Shanghai and that our Navy could obtain it there. I instructed the admiral of the Pacific station to have the coal tried at once. I am inclined to think it is not good coal, though this man stated that it was largely in use out there.

Mr. THOMAS. I simply knew that it was considered very good coal for iron and steel.

Mr. ROBERTS. You said that if we had colliers we could use them in transporting coal instead of paying freight money. Would there be a saving to the Government if you transported coal in those colliers?

Admiral COWLES. Not in dollars and cents, but colliers are an absolutely necessary adjunct for an efficient fleet of naval vessels, and while not in actual use with the fleet they can be used for transporting coal to our naval stations. We ought to have sufficient colliers to take our fleet anywhere.

Mr. ROBERTS. To go a little further, there would be a continuing use and a continuing demand in the Navy for those additional colliers, would there not, in addition to the demand for the transportation of coal on this cruise?

Admiral COWLES. Yes.

The CHAIRMAN. "Contingent, Bureau of Equipment," \$15,000, the same as last year.

The Paymaster-General has suggested that we take out these items from the different bureaus, the items of express charges, etc., and consolidate them all under the Bureau of Supplies; that is, to let him look after these items in the different bureaus. Have you any objection to that as to your Bureau? That would be the same as that with reference to freight, where we took the different items of freight from the different bureaus and put them under Supplies and Accounts. The Paymaster-General thinks it would be better, more economical, if we took the items of express charges and ice and some other things and put them under the Bureau of Supplies. Have you talked with him about that?

Admiral COWLES. No; I have not.

The CHAIRMAN. Then just put your answer in after communicating with him. He suggested these things: Express charges, telegraphing, postage on letters sent abroad, and ice.

Admiral COWLES. I have since discussed the matter with the Paymaster-General. I do not believe the change of these items from the appropriation of the Bureau of Equipment to the Bureau of Supplies and Accounts or any other bureau will result in any economy. I understood from my discussion of the subject with the Paymaster-General that it is not contemplated placing these items under the

appropriations of the Bureau of Supplies and Accounts, but rather to take similar items from the contingent appropriations of all bureaus and place them in the appropriation "Pay, miscellaneous," which is under the Secretary's Office, and while I should not like to see the items transferred to the appropriations of another bureau, I have no objections to offer to their being placed under the Secretary's Office. I understand this to apply only to the items express charges, telegraphing, postage on letters sent abroad, and ice for the Bureau of Equipment and all of its subordinate offices. I should further like to suggest that this appropriation be modified to provide for the purchase of technical and professional books for use of the Bureau of Equipment. The Bureau is frequently in need of technical books relating to its duties, but heretofore has only been able to obtain them by loan or compelled to dispense with their use entirely.

Mr. LOUDENSLAGER. How much was it for ice, telegraphing, postage, and express charges?

Admiral COWLES. The appropriation for the fiscal year 1907 was but \$11,000, so I submit the items of expenditure for that year. For the current fiscal year, i. e., 1908, we have \$15,000, the same amount we are asking now for 1909:

Contingent equipment.

Items of appropriation.	Dr.	Cr.
	Expenditures.	Appropriation.
Appropriation.....		\$11,000.00
Express charges.....	\$2,192.00	
Packing boxes and materials.....	1,113.00	
Printing.....	80.00	
Advertising.....	560.00	
Telegraphing.....	994.00	
Furniture.....	1,510.00	
Postage.....	336.00	
Car fare.....	252.00	
Ice.....	357.00	
Telephone.....	1,907.00	
Laundry.....	125.00	
Labor at navy-yards.....	610.00	
Foreign account and miscellaneous expenses.....	1,668.00	
To balance.....	10,804.00	
Total.....	196.00	
	11,000.00	11,000.00

OCEAN AND LAKE SURVEYS.

The CHAIRMAN. Ocean and lake surveys, hydrographic surveys, and for the purchase of nautical books, charts, and sailing directions, and express charges on the same, \$75,000, the same as last year. Do you need all of that during the coming year?

Admiral COWLES. Yes; my estimates for this year are about \$78,000.

The CHAIRMAN. Please put in a statement showing how it was spent in the last fiscal year, and also where the surveys were made.

Admiral COWLES.

Ocean and lake surveys, 1907.

	Dr.	Cr.
	Expendi- tures.	Appropri- ation.
Appropriation.....		\$75,000.00
Purchase of charts.....	\$9,878.00	
Purchase of nautical books.....	240.00	
Pay of surveys, draftsmen, etc.....	8,000.00	
Surveying instruments, etc.....	4,000.00	
Express charges, charts, books, etc.....	160.00	
Foreign account and miscellaneous materials and instruments.....	23,500.00	
Labor at navy-yards.....	11,150.00	
Total amount expended.....	56,948.00	
Balance.....	18,052.00	
	75,000.00	75,000.00

The following is a summary of the surveying operations of United States naval vessels for the year ending June 30, 1907:

Surveyed by—	Region surveyed.	Remarks.
Almirante Bay survey expedition.....	Almirante Bay, Panama.....	About 100 square miles.
Eagle.....	North coast of Santo Domingo and Haiti; and target grounds off Cape Cruz, south coast of Cuba.	
Don Juan de Austria.....	Barahona, Santo Domingo.....	
Iroquois.....	Searched for reported shoal off Barbers Point, Oahu, Hawaiian Islands.	
Nashville.....	Puerto Plata, Santo Domingo.....	

The CHAIRMAN. "Depots for coal." To enable the Secretary of the Navy to execute the provisions of section 1552, Revised Statutes, and so forth, \$600,000. Where will that go? Are you proposing to purchase any new land for depots?

Admiral COWLES. No; unless we find it necessary to purchase land in the vicinity of Norfolk. We contemplate using the amount requested this year for establishing a station at or near Norfolk, and for completing those at San Diego and California City Point. One hundred and fifty thousand dollars will be required at Norfolk, and the balance at San Diego and California City Point to finish up those stations. There is a very pressing demand for coaling stations out there.

The CHAIRMAN. How much is needed to finish up San Francisco?

Admiral COWLES. California City Point, \$250,000; San Diego, \$200,000; Norfolk and vicinity, \$150,000. We have no proper place to store coal at Norfolk or in that vicinity. We have under way a scheme looking to taking over the Government pier at the Jamestown Exposition grounds and establishing a coaling station there. The Government owns the pier and some of the buildings on the grounds, but does not own any of the land, and the Exposition Company is considerably in debt to the Government. The Exposition Company by the act of Congress authorizing its construction have first claim to the purchase of this pier. I have requested through the proper channels that action be taken with a view of having these piers transferred to the Navy Department, and it is believed with

a small outlay of money an excellent coaling station could be established on this site. Hampton Roads is one of the principal rendezvous for vessels of the United States Navy, and it is necessary for the efficiency of the fleet that there shall be means of coaling a large number of vessels with dispatch. On the shore in the vicinity—i. e., Newport News and Lamberts Point—are the terminals of two great railroads which bring to tidewater steaming coal which may be considered to be the best produced in the United States. Means for coaling at these terminals are designed especially for merchant vessels and are not adapted to the needs of the naval service. Furthermore, neither of these two ports nor any other port on the Atlantic coast can be depended on to supply coal at all times when needed. We have long recognized the desirability of having adequate coaling facilities in the waters of the lower Chesapeake Bay, at which could be kept on hand a large supply of coal that may be expeditiously delivered to the fleet and thus avoid the delays that frequently occur and which can not be foreseen when merchant vessels have priority of loading and of the use of tugs and lighters belonging to the coal companies. In fact, but a short while ago the railroad company entering Newport News issued an order prohibiting further use of their barges for coaling naval vessels in the harbor.

The CHAIRMAN. That is not before us yet.

Mr. PADGETT. I think that scheme was gotten up by the directors of the exposition in the hope of getting the Government to purchase the whole property of the Exposition Company in order to pay their debts—that is, liquidate our own, and then turn it into a training station, and so forth. That is what the receivers want to do, I understand.

The CHAIRMAN. You say you need \$150,000 at Norfolk. Where would that go to?

Admiral COWLES. We will have to determine that later. As I have stated, we are endeavoring to get possession of the pier at the Jamestown Exposition grounds. I have also stated that there is a very pressing need of a coaling station at Norfolk or in the immediate vicinity of Norfolk, and if we are unable to get possession of the Jamestown pier on reasonable terms we will have to look around elsewhere for a situation, possibly at the navy-yard proper.

The CHAIRMAN. So that if \$150,000 was left out of this item of \$600,000—

Admiral COWLES. We expect to be able to use it and sincerely hope it will not be left out. On more than one occasion naval vessels have gone into Norfolk for bunker coal and have been required later to go to New York to get it. This shows you what may be expected at this port, and it should not be lost sight of that it is probably the greatest bunkering port in the United States. We also have had to send our colliers to Government coaling stations to coal because of the inability of coal suppliers at Lamberts Point and Newport News to give us coal. They are quite willing to give it to us when they can, but there are certain conditions attending the production of coal which human nature can not overcome, and these conditions have confronted us on more than one occasion within the past few years; in fact, we anticipated some such condition in connection with coaling the fleet, but fortunately for the Navy the conditions we anticipated did not arise.

Mr. LOUDENSLAGER. Have you a coaling station at Norfolk?

Admiral COWLES. We have a coaling station at the yard for about 10,000 tons, but it is a very poor one and not adapted to coaling naval vessels owing to lack of appliances and its inland location; in fact it is only used to store coal for yard use to provide against the contingencies referred to.

Mr. LOUDENSLAGER. Is there any great need for a large amount of coal to be stored near Norfolk?

Admiral COWLES. There is no great need for a large amount to be stored at Norfolk, except during certain times of the year to meet the emergencies which I have previously referred to. We should have at least 10,000 tons stored in a proper coaling plant, with a sufficient number of coaling barges, in order that the vessels of the fleet, when coming into the port, may not be embarrassed and delayed for the need of sufficient bunker coal to carry them on to their destination.

Mr. LOUDENSLAGER. Is not Lamberts Point just as good a place?

Admiral COWLES. Lamberts Point and Newport News are on opposite sides of the river and about 12 miles apart. If facilities were provided for bunkering naval vessels at either port, and a suitable supply of coal could be safely counted upon, they would be just as good, and request would not be made for funds to establish a coaling station at some other port, but our experiences of the past years teach us that neither place can be relied upon, nor can any other coaling port on the Atlantic coast for that matter. It is not a very uncommon thing for conditions to be such that not a car moves for a week in some of the coal regions of the Atlantic seaboard owing to slides on the railroads. This results in a congestion at the loading port which it takes some time to overcome. What we need is a coaling station in the vicinity of Norfolk, so that it can be kept well stocked at all times at a minimum cost. It would cost but a few cents to load coal in the summer time at Lamberts Point or Newport News, and to barge it to a coaling station in the vicinity and discharge it there to be held in reserve. If we stock up a distant port for the purpose of using it afterwards to meet our demands at places other than at the port stocked, we must consider the additional cost involved in transporting it to that port; but most important of all, it is not available in Norfolk Harbor when we desire it for bunkering purposes. As I have stated before, we anticipated very severe conditions during the present winter, and though these conditions have not materialized as yet, there is ample time remaining to do so, and in order to avoid any difficulty in coaling the fleet it was necessary for us to contract somewhat in advance for our requirements and to pay an additional price per ton in order that the coal suppliers, should the difficulties we anticipated be realized, would use extra efforts to furnish us with the necessary amount of coal. We also took particular pains to stock up our coaling stations on the Atlantic seaboard, and however severe conditions might have been we would have experienced little difficulty, but we were only able to do this from the fact that we had coaling stations in which to store coal. Otherwise, if the usual winter conditions had confronted us, the Department would have been practically helpless and unable to move the fleet which is now on its way to the Pacific.

CIVIL ESTABLISHMENT.

The CHAIRMAN. I believe there is only one matter left, the civil establishment. In different places you have inserted new items. Are they paid out of the general fund?

Admiral COWLES. No; out of the appropriation "Civil Establishment, Bureau of Equipment," which provides for each one specifically.

The CHAIRMAN. Instead of paying them a per diem, you put them on a regular roll?

Admiral COWLES. Yes; but we want to give some of the more efficient ones a little more pay, or we may expect to lose their services. The equipment officers at the various navy-yards under whom these people work recommend many and extensive increases. We have only presented to you in these estimates the most important and essential ones in the hope that something will be done to relieve the situation in this regard.

The CHAIRMAN. Is there anything further you desire to say?

Admiral COWLES. Yes; there is the item in reference to the grounds and roads, Naval Observatory, \$10,000. It is the same as last year.

The CHAIRMAN. Last year, as I remember, some one on the floor of the House asked about this item of \$10,000, and as to how it was being expended.

Admiral COWLES. Yes; this question is asked and answered every year when the appropriation comes up for consideration.

Mr. LOUDENSLAGER. How many acres are there in the Observatory grounds?

Admiral COWLES. About 70 acres.

The CHAIRMAN. Please state how much we have already expended there for grounds, roads, etc.?

Admiral COWLES. About \$140,000 since the appropriation was first estimated in 1893. A similarly worded appropriation has been granted annually since the Observatory was removed to its present site. It was for several years reduced to \$5,000, an amount entirely inadequate and leading to such insanitary conditions as to result in its restoration to \$10,000. This appropriation must be continued for some years to conform to the improvements to be made in Observatory Circle, involving the expenditure by the District of hundreds of thousands of dollars. The present estimate includes, among minor incidentals too numerous to mention, principally the expense of filling in the depressions on the north side of the grounds adjoining Massachusetts avenue; of making new roads and walks; of replacing the old board walks with cemented; of repairing the roadbed of Observatory lane from the damages of a recent washout; of improving the hitherto unimproved grounds, such as may be expected of a tract of nearly 70 acres, much of it yet in a wild state of nature; of caring for trees, lawns and shrubbery; of keeping in repair several miles of roads and walks; of resurfacing old roads and adjusting all the roadbeds within the grounds to the grades of the Observatory Circle as fast as completed.

At 1.30 p. m. the committee adjourned until to-morrow, January 16, 1908, at 10.30 a. m.

APPENDIX A.

Sealed proposals in duplicate endorsed "Proposals for Coaling the Atlantic Fleet," will be received in the Bureau of Equipment, Navy Department, until 11 o'clock a. m., Tuesday, September 24, 1907, and then and there publicly opened. Proposals for transportation will be received as follows: (1) For vessels of American register; (2) For vessels of foreign register (one form); (3) For foreign coal delivered alongside vessels of the fleet at given destinations (separate form). Blank form for proposals and specifications giving quantities, dates, and other details may be obtained on application to the Bureau of Equipment, Navy Department. Applicants must state which form is desired. The right is reserved to reject any or all bids and to waive informalities.—WM. S. COWLES, *Chief of Bureau*, September 9, 1907.

Proposals for supplying Welsh coal for Atlantic fleet.

_____ 1907.
The undersigned, _____, of the city of _____, in the State of _____, hereby offer to furnish and deliver in good condition in steamships under your advertisement dated September 9, 1907, and subject to all the requirements of the same, and of the specifications given below:

_____ tons of Admiralty Cardiff coal (Admiralty list), as follows:
20,000 tons at Punta Arenas, to arrive not later than January 20, 1908, at \$_____ per ton, \$_____.
25,000 tons at Callao, to arrive not later than February 6, 1908, at \$_____ per ton, \$_____.
25,000 tons at Magdalena Bay, to arrive not later than February 29, 1908, at \$_____ per ton, \$_____.
10,000 tons at Magdalena Bay, to arrive not later than March 15, 1908, at \$_____ per ton, \$_____.
20,000 tons at San Francisco or Mare Island, to arrive not later than April 9, 1908, at \$_____ per ton, \$_____.
20,000 tons at San Francisco or Mare Island, to arrive not later than April 13, 1908, at \$_____ per ton, \$_____.

2. The coal to be supplied under this offer to be the best quality Cardiff coal (Admiralty list), double screened at time of shipment. Bidders must state the trade name of the coal to be supplied under this offer and must, within thirty days after the acceptance of this offer, or any part of it, give the name, nationality, net registered tonnage, and cargo capacity of each ship to be used for transporting it, and forward to the Bureau of Equipment, Navy Department, at the time each shipment is made a copy of the bill of lading and a colliery certificate certified to by the United States consul for each shipment.

3. No cargo or part of any cargo after departure from point of loading will be diverted from its original destination without permission of the United States Government previously obtained.

4. The master of each ship upon arrival at destination as per charter to report in person to the senior United States naval officer, if any be present; if no United States naval officer be present, then in person to the United States consul at the port, and await arrival of the fleet. On arrival of the fleet the master to report in person to the senior naval officer and be subject to his orders in the matter of discharge.

5. Each cargo to be delivered in good condition (c. i. f. ex duty) alongside any wharf, or alongside any ship or ships or lighters where the carrier may safely lie afloat, as may be directed by the senior naval officer present.

6. Each cargo to be discharged at the expense of the Government, the Government to have full use of all the ship's gear and appliances and attendant expenses, including winchmen, necessary to assist in discharge.

7. The Government guarantees to discharge each cargo at the rate of 400 tons per day, excepting Sundays and legal holidays of the United States. Failing to discharge at the above guaranteed rate through any fault of its own, the Government will pay demurrage at the rate of 8 cents per ton per day on the net registered tonnage of the ship: *Provided*, That any time saved a ship by discharging her cargo at a rate greater than that required by these specifications will be deducted from any time lost by ship and charged to the Government while awaiting arrival of the fleet, day for day.

8. Lay days for each ship commence when notice in writing has been received from the master thereof by the senior naval officer after the arrival of the fleet. Any delay to ship awaiting arrival of the fleet will be paid for at the rate of \$_____ per day; parts of days pro rata. (Bidders will state the rate per day for delay.)

9. The coal to be paid for on vouchers prepared at the Navy Department on turn weight or on bill of lading weight, at the option of the Bureau of Equipment, upon receipt of cable advice from the senior naval officer of the quantity discharged. Under no circumstances will payment be made for any quantity in excess of the bill of lading weight; the weight to be determined in a manner satisfactory to the senior naval officer.

10. If upon discharge of a cargo the quantity of coal reported discharged should fall short 1 per cent or less from the bill of lading weight, such shortage may be disregarded by the Government and payment made on the bill of lading weight. The Government reserves the option of deducting the value of any shortage that may appear, or of allowing for all shortage without deducting its value, if circumstances warrant.

11. Demurrage, general average, and all other claims against the cargo to be settled by the Government at Washington.

12. The Government reserves the right to reject any or all proposals and to waive informalities.

(Name) ————.

(Address) ————.

(Date) ————.

APPENDIX B.

Sealed proposals in duplicate indorsed "Proposals for coaling the Atlantic Fleet," will be received in the Bureau of Equipment, Navy Department, until 11 o'clock a. m., Tuesday, September 24, 1907, and then and there publicly opened. Proposals for transportation will be received as follows: (1) For vessels of American register; (2) for vessels of foreign register (one form); (3) for foreign coal delivered alongside vessels of the fleet at given destinations (separate form). Blank form for proposals and specifications giving quantities, dates, and other details may be obtained on application to the Bureau of Equipment, Navy Department. Applicants must state which form is desired. The right is reserved to reject any or all bids and to waive informalities.—WM. S. COWLES, *Chief of Bureau, September 9, 1907.*

Proposal for transporting coal for the Atlantic Fleet.

—————, 1907.

1. The undersigned, ————, of the city of ————, in the State of ————, hereby offers to furnish, under your advertisement dated September 9, 1907, and subject to all the requirements of the same and of the specifications given below, which are to be made a part of any contract effected under this offer:

(a) Transportation of ———— tons of semibituminous coal from an Atlantic coast port of the United States to the ports given below, in *steamers of American register*.

(b) Transportation of ———— tons of semibituminous coal from an Atlantic coast port of the United States to the ports given below, in *steamers of foreign register*.

7,000 tons from loading port to Trinidad, December 1-5 loading, in *steamships of American register*, at \$——— per ton, \$———.

7,000 tons from loading port to Trinidad, December 1-5 loading, in *steamers of foreign register*, at \$——— per ton, \$———.

6,000 tons from loading port to Rio de Janeiro, December 5-10 loading, in *steamships of American register*, at \$——— per ton, \$———.

6,000 tons from loading port to Rio de Janeiro, December 5-10 loading, in *steamships of foreign register*, at \$——— per ton, \$———.

20,000 tons from loading port to Punta Arenas, December 10-18 loading, in *steamships of American register*, at \$——— per ton, \$———.

20,000 tons from loading port to Punta Arenas, December 10-18 loading, in *steamships of foreign register*, at \$——— per ton, \$———.

25,000 tons from loading port to Callao, December 15-20 loading, in *steamships of American register*, at \$——— per ton, \$———.

25,000 tons from loading port to Callao, December 15-20 loading, in *steamships of foreign register*, at \$——— per ton, \$———.

25,000 tons from loading port to Magdalena Bay, December 20-27 loading, in *steamers of American register*, at \$——— per ton, \$———.

25,000 tons from loading port to Magdalena Bay, December 20-27 loading, in *steamers of foreign register*, at \$——— per ton, \$———.

10,000 tons from loading port to Magdalena Bay, January 1-9 loading, in *steamers of American register*, at \$——— per ton, \$———.

10,000 tons from loading port to Magdalena Bay, January 1-9 loading, in *steamers of foreign register*, at \$——— per ton, \$———.

20,000 tons from loading port to San Francisco or Mare Island, Cal., January 21-26 loading, in steamships of *American register*, at \$—— per ton, \$——.

20,000 tons from loading port to San Francisco or Mare Island, Cal., January 21-26 loading, in steamships of *foreign register*, at \$—— per ton, \$——.

20,000 tons from loading port to San Francisco or Mare Island, Cal., January 25-February 1 loading, in steamships of *American register*, at \$—— per ton, \$——.

20,000 tons from loading port to San Francisco or Mare Island, Cal., January 25-February 1 loading, in steamships of *foreign register*, at \$—— per ton, \$——.

NOTE.—On page 3 of this proposal bidders must state the name, nationality, net registered tonnage, cargo capacity, date of reporting, and cancellation date (which must be in every case not later than the earliest date mentioned in these specifications for each port) of each steamer offered: *Provided*, That bidders offering foreign tonnage may omit names, nationality, net registered tonnage, and cargo capacity of vessels, which information, however, must be furnished by successful bidders within thirty days before the earliest date given in these specifications for each port.

2. The coal shipped under this proposal will be supplied under chutes at either Lamberts Point, Va., Newport News, Va., Philadelphia, Pa., Baltimore, Md., or at any other port of the United States on the Atlantic coast, at the option of the Bureau of Equipment.

3. Each ship to be consigned to the coal supplier at the port designated for cargo by the Chief of the Bureau of Equipment, Navy Department. Government dispatch will be given each ship, but each ship must take its turn with other ships loading for the Government at the same port, if required by extraordinary conditions.

4. Each ship when loaded to sail immediately to the port for which chartered, and on arrival at destination the master will report his arrival in person to the senior United States naval officer, if any be present. If no United States naval officer be present, the master to report in person to the United States consul at the port and await the arrival of the United States fleet. On arrival of the fleet the master will report in person to the senior naval officer and be subject to his orders in the matter of discharge.

5. Each cargo to be delivered in good condition alongside any wharf, ship or ships, or lighters where the carrier may safely lie afloat, as may be directed by the senior naval officer.

6. All expenses of loading and delivery of cargoes, including port charges, are to be paid by the ships. The cargoes to be discharged at the expense of the Government. The Government to have full use of all the ships' gear and appliances and attendant expenses (including winch men) necessary to assist in discharging cargoes.

7. The Government guarantees to discharge each cargo at the rate of 400 tons per day, excepting Sundays and legal holidays of the United States. Failing to discharge at the above-guaranteed rate, through any fault of its own, the Government will pay demurrage at the rate of 8 cents per ton per day on the net registered tonnage of the ship: *Provided*, That any time saved a ship by discharging her cargo at a rate greater than that required by these specifications will be deducted from any time lost by the ship and charged to the Government while awaiting the arrival of the fleet, day for day.

8. Lay days for each ship commence when notice in writing has been received from the master thereof by the senior naval officer after the arrival of the fleet. Any delay to ship awaiting arrival of the fleet will be paid for at the rate per day stated below, parts of days pro rata. (Bidders must state the rate per day for delay for each ship offered.)

9. The Government will pay for the freight by vouchers prepared at the Navy Department upon receipt of cable advice from the senior naval officer present of the number of tons of coal discharged, the weight to be determined in a manner satisfactory to the senior naval officer; under no circumstances will payment be made for freight on any coal reported delivered in excess of the bill of lading weight.

10. If upon discharge of a cargo the quantity of coal reported discharged should fall short 1 per cent or less from the bill of lading weight, such shortage may be disregarded by the Government and payment made on the bill of lading weight. If, however, this shortage should exceed 1 per cent the total shortage shall be paid for by the ship at the rate per ton for bunker coal at point of loading at the time of loading, the amount to be deducted before payment for freight is made. The Government reserves the option of demanding payment for *any* shortage that may appear, or of allowing for *all* shortage without deducting its value, if circumstances warrant.

11. Should disaster or other cause necessitate a ship putting into any port or ports and discharging all or any part of her cargo and disposing of it by sale or otherwise, it is agreed that such part of cargo as may be necessary to dispose of shall be delivered to the United States Government representative at that port (at the option of the

Bureau of Equipment) to be disposed of in such manner as he may be directed by United States Government. All moneys resulting from such disposal to be received and all disbursements against cargo to be made by him; the balance, if any remain, to be remitted to the United States Government as he may be directed. Ship to have option of continuing voyage or transshipping cargo to destination. No pro rata freight to be paid to ship.

12. Demurrage, general average, and all other claims against the cargo to be settled by the Government at Washington.

13. It is distinctly understood and agreed that under no circumstances will use be made of the Clayton method or any other method of extinguishing fires in cargoes unless it be shown to the satisfaction of the master of the ship that its use is necessitated by the actual presence of fire in the coal cargo at the time of using.

14. Alternative propositions for time charters of ships (commercial Government form) will be considered. Ships to be delivered to the Navy Department at Hampton Roads ready in all respects for cargo and to be redelivered to master on completion of discharge. All such propositions must be accompanied by a form properly filled out covering all conditions under which the offer is made.

15. The Government reserves the right to reject any or all proposals and to waive informalities.

(Name) _____
(Address) _____

(Date) _____

APPENDIX C.

Sealed proposals in duplicate, endorsed "Proposals for coal for the U. S. Naval Coal Depot, Sangley Point, P. I.," will be received by the Bureau of Equipment, Navy Department, until 11 o'clock a. m., Thursday, December 27, 1906, and then and there publicly opened, for the transportation to that depot of 50,000 tons, or any part thereof, or for furnishing free alongside at that depot 50,000 tons, or any part thereof, of semibituminous coal. Proposals will be received as follows: (a) For transportation only in American vessels; (b) for transportation only in foreign vessels; (c) for American coal delivered alongside at coal depot, Sangley Point; (d) for Cardiff coal delivered alongside coal depot, Sangley Point. Specifications and blank forms for proposals may be had on application to the Bureau of Equipment, Navy Department. The right is reserved to reject any or all proposals.—WM. S. COWLES, *Chief of Bureau*, December 6, 1906.

Proposal for furnishing coal and for transporting coal to U. S. Naval Coal Depot, Sangley Point, Manila Bay, Philippine Islands.

_____, 1906.

1. The undersigned, _____, of the city of _____, in the State of _____, hereby offers to furnish, under your advertisement dated December 6, 1906, and subject to all the requirements of the same and of the specifications given below:

(a) Transportation of _____ tons of semibituminous coal from an Atlantic coast port of the United States to the U. S. Naval Coal Depot, Sangley Point, Manila Bay, Philippine Islands, in *steamers of American register*, at \$_____ per ton, \$_____.

(a¹) Transportation of _____ tons of semi bituminous coal from an Atlantic coast port of the United States to the U. S. Naval Coal Depot, Sangley Point, Manila Bay, Philippine Islands, in *sailing vessels of American register*, at \$_____ per ton, \$_____.

(b) Transportation of _____ tons of semibituminous coal from an Atlantic coast port of the United States to the U. S. Naval Coal Depot, Sangley Point, Manila Bay, Philippine Islands, in *steamers of foreign register*, at \$_____ per ton, \$_____.

(b¹) Transportation of _____ tons of semibituminous coal from an Atlantic coast port of the United States to the U. S. Naval Coal Depot, Sangley Point, Manila Bay, Philippine Islands, in *sailing vessels of foreign register*, at \$_____ per ton, \$_____.

2. For the above items the Government will supply the coal f. o. b. cars on piers at either Lambert Point, Va., Newport News, Va., Philadelphia, Pa., or Baltimore, Md., its option.

3. Each vessel to be consigned to the coal supplier named by the Chief of the Bureau of Equipment, Navy Department, at the point of loading designated, and to take turn in loading. Government dispatch will be given each vessel, but the Government will permit only dry coal to be loaded, and will not be liable for damages or for demurrage incurred by reason of delay to vessels at loading port awaiting dry coal.

4. Each vessel when loaded to sail immediately to the U. S. Naval Coal Depot, Sangley Point, and report arrival to the Commandant of the Naval Station, Cavite, or his accredited representative, and be subject to his orders in the matter of discharge.

5. Each cargo to be delivered in good condition alongside wharf or alongside any vessels or lighters where the carrier may safely lie afloat, as may be directed by the Commandant of the U. S. Naval Station, Cavite, or his accredited representative.

6. Should disaster or other cause necessitate a vessel putting into any port or ports and discharging all or any part of her cargo, and disposing of it by sale or otherwise, it is agreed that such part of cargo as may be necessary to dispose of shall be delivered to the U. S. Government representative at that port (at the option of the Bureau of Equipment), to be disposed of in such manner as he may be directed by the United States Government. All moneys resulting from such disposal to be received, and all disbursements against cargo to be made by him; the balance, if any remain, to be remitted to the United States Government as he may be directed. Vessel to have option of continuing voyage or transshipping cargo to destination. No pro rata freight to be paid to vessel.

(c) ——— tons of *American* semibituminous coal delivered in good condition c. i. f. and duty paid alongside wharf or alongside such vessels or lighters where the carriers may safely lie afloat, as the Commandant, Naval Station, Cavite, or his accredited representative at Sangley Point may direct, at \$——— per ton, \$———.

7. Bidders must state the nationality of the vessels to be used in the transportation, the trade name of the coal to be furnished, the name of the mine or mines from which it will be taken, the name of the suppliers or tidewater agents, and the loading port. No cargo nor part of any cargo after departure from port of loading will be diverted from its original destination without permission of the United States Government previously obtained. Coal delivered under this item must be exactly as per proposal and will be subject to Government inspection at point of loading and to such tests as the Government may consider desirable.

(d) ——— tons of *Welsh* coal delivered in good condition c. i. f. and duty paid alongside wharf, or alongside such vessels or lighters where the carriers may safely lie afloat, as the Commandant, Naval Station, Cavite, or his accredited representative at Sangley Point may direct, at \$——— per ton, \$———.

8. This bid must be for the best quality No. 1 Admiralty Welsh coal, double screened at time of shipment. Bidders must state the nationality of the vessels to be used in the transportation and the trade name of the coal to be furnished, and must forward to the Bureau of Equipment, Navy Department, at the time each shipment is made, a copy of the bill of lading and a colliery certificate for each shipment, certified to by the United States consul. No cargo or part of any cargo after departure from port of loading will be diverted from its original destination without permission of the United States Government previously obtained.

GENERAL.

9. All expenses of loading and delivery of cargoes, including port charges, to be paid by the vessel. Expenses of discharging the cargoes to be paid by the Government. The Government to have full use of all the vessel's gear and appliances and attendant expenses necessary to assist in discharge.

10. There will be no wharf charges at Cavite.

11. The Government guarantees to discharge the cargo from steamers at the rate of 400 tons per day, and from sailing vessels at the rate of 200 tons per day, excepting Sundays and legal holidays, days upon which work is not required by the customs of the port, and days or parts of days when discharge is prevented by stress of weather. Failing to discharge at the above guaranteed rate the Government will pay demurrage at the rate of 8 cents per ton on the net registered tonnage of the vessel, if such failure is due to any fault of the Government.

12. Lay days not to commence until the expiration of twenty-four hours after notice of arrival of each vessel has been given by the master thereof to the Commandant, Naval Station, Cavite. The Government, however, reserves the right to commence discharge as early after the arrival of each carrier as may be practicable.

13. The Government will pay for the coal or the freight, as the case may be, by vouchers prepared at the Navy Department, upon receipt of cable advice from the Commandant of the Naval Station, Cavite, of the number of tons of coal discharged, and only for the quantity certified to have been received by him; under no circumstances will payment be made for any quantity reported delivered in excess of the bill of lading weight.

14. If upon discharge of the cargo the quantity of coal reported discharged should fall short 1 per cent or less from the bill of lading weight such shortage may be disregarded by the Government and payment made on the bill of lading weight. If, however, this shortage should exceed 1 per cent, the total shortage shall be paid for by the ship at the rate per ton for bunker coal at point of loading, the amount to be

deducted before payment is made. The Government reserves the option of demanding payment for any shortage that may appear, or of allowing for all shortage without deducting its value, if circumstances warrant.

15. Shipment of the entire quantity to be completed within six months after date of contract in cargo lots of not less than 2,500 tons, and not more than two cargoes to be shipped in one month.

16. Successful bidders will be required to state the names of the vessels to be used and the probable date of their reporting for cargo, which vessels and dates must be acceptable to the Bureau of Equipment, Navy Department.

17. In the event of the lowest rate being submitted by more than one bidder the Government reserves the right to award the contract for all or for any of the cargoes to any of such bidders.

18. Demurrage, general average, and all other claims against the cargo to be settled by the Government at Washington.

19. It is distinctly understood and agreed that under no circumstances will use be made of the Clayton method, or any other method of extinguishing fires in cargoes unless it be shown to the satisfaction of the master of the ship that its use is necessitated by the actual presence of fire in the coal cargo at the time of using.

20. The Government reserves the right to reject any or all proposals.

(Name) _____.

(Address) _____.

(Date) _____.

APPENDIX D.

Proposals received for transporting coal to the naval coal depot, Sangley Point, Manila Bay, Philippine Islands, June 22, 1907.

Lind & Co.:

August, 10,000 tons, foreign steamers.....	^a \$4. 45
September, 10,000 tons, foreign steamers.....	^a 4. 50
October, 10,000 tons, foreign steamers.....	^b 4. 60
November, 10,000 tons, foreign steamers.....	^b 4. 75
December, 10,000 tons, foreign steamers.....	^b 4. 80
Coal delivered at Cavite, 50,000 tons, foreign steamers.....	7. 50
McCall-Dinning Co., 50,000 tons, foreign steamers.....	^a 4. 60
United States Shipping Co., 50,000 tons, foreign steamers.....	4. 63
Howard Houlder & Partners, 50,000 tons, foreign steamers.....	4. 64
J. H. Winchester & Co., 12,000 tons, foreign steamers.....	4. 75

^a Accepted.

^b As proposals called for offers for transporting 50,000 tons or any part thereof, the first three items of the bid of Lind & Co. are low, taken by themselves. The five items average \$4.62 per ton, while the first four average \$4.575, the first three \$4.513, and the first two \$4.475.

[No. 6.]

COMMITTEE ON NAVAL AFFAIRS.

House of Representatives

January 17, 1908.

The committee met at 10.45 o'clock a. m., Hon. George Edmund Foss in the chair.

NAVAL ACADEMY.

Capt. Charles J. Badger, Superintendent of the Naval Academy, accompanied by Professor of Mathematics Omenzo G. Dodge, Naval Academy, appeared before the committee.

The CHAIRMAN. The first this morning is the Naval Academy. "Pay of professors and others, Naval Academy: One professor of physics, \$3,000." I see you have stricken out the words "as head of the department."

Captain BADGER. Yes, sir.

The CHAIRMAN. Kindly explain that.

Captain BADGER. A board was ordered in June or July by the Secretary of the Navy, with Capt. Richard Wainwright as the senior member, who investigated the curriculum of the Naval Academy and under orders to make such recommendations for changes as they saw fit. Among other recommendations they made was that the department of physics should be changed to a department of electrical engineering and physics, and placed under a seagoing naval officer, an expert in electrical engineering as applied to the Navy; and this was approved by the Department, but if it had been carried out immediately the professor at the head of the department of physics, who held his place by virtue of the law as head of the department, would have lost his place immediately. He has been there for about thirty-seven years. I refer to Professor Terry. He is a civilian. I recommended that the change should not be made, the two departments should not be combined, until the expiration of this fiscal year, so as not to throw Professor Terry out at once, and my recommendation was adopted. But the intention is to combine the departments of electrical engineering and physics on the 1st of next July, under a seagoing officer, and Professor Terry to become a professor of physics, at \$2,500 a year.

The CHAIRMAN. Is there any advantage in having a seagoing officer at the head of the department?

Captain BADGER. Yes; the idea being to keep the Naval Academy curriculum in close touch with service developments and requirements.

The CHAIRMAN. Is he, from a professional standpoint, as expert in physics? Is he equal to the civilian?

Captain BADGER. As an expert in physics I should say that he has not given the attention to physics that the civilian has but he

is an expert electrical engineer as applied especially to the work in the Navy, and that is the more important part of the department which it is the intention to establish.

The CHAIRMAN. This arrangement will give you both, will it?

Captain BADGER. This arrangement will give one department of electrical engineering and physics, and Professor Terry, the former head of physics, will become a professor, at \$2,500.

Mr. PADGETT. What is Professor Terry getting at the present time?

Captain BADGER. Three thousand dollars.

Mr. PADGETT. So it will be a reduction in his salary?

Captain BADGER. A reduction of \$500 a year, and it is really more than that. It is pretty hard on the professor, I must say. It amounts to a reduction of \$500 in his salary, and, because of his ceasing to be a head of department, he will no longer have quarters, as he has now.

Mr. PADGETT. Do all of the civilian professors live outside of the academy?

Captain BADGER. All except heads of departments. As a matter of fact, Professor Terry is the only one there now who has quarters. He gets quarters as head of the department. Some civilian "instructors" are quartered at the officers' mess, but if a sufficient number of bachelor navy officers were attached to the academy to fill the quarters by assignment the civilians would have to live outside.

The CHAIRMAN. You say he gets \$3,000 salary now?

Captain BADGER. Yes.

Mr. PADGETT. And quarters?

Captain BADGER. Yes, sir.

Mr. MUDD. There is nothing to indicate that here in the bill. He proposes a change in the bill, does he?

The CHAIRMAN. Yes. How old is Professor Terry?

Captain BADGER. Professor Terry is about 63 years of age, I think, sir. This thing places him on the same basis as one other old professor there—Prof. W. W. Johnson, professor of mathematics, Naval Academy, not a professor of mathematics in the Navy. He has been there about forty years, I imagine. I know he was there when I entered in 1869.

The CHAIRMAN. That is referred to in the next item, is it not?

Mr. MUDD. Is there any change in the status of Professor Johnson which is recommended?

Captain BADGER. No, sir.

The CHAIRMAN. One professor of mathematics—

Captain BADGER. That is Professor Johnson.

Professor DODGE. There is no change in that.

The CHAIRMAN. Why is "professor" stricken out before "of mathematics?"

Captain BADGER. Because that should be read in connection with the preceding paragraph.

The CHAIRMAN. There are no other changes in the instructors at all, are there?

Captain BADGER. No, sir.

The CHAIRMAN. Going to page 1811, "Three clerks to the superintendent," instead of two clerks to the superintendent. You are asking for an extra clerk there?

Captain BADGER. I can give the explanation, but I believe Mr. Dodge, who is more conversant with the history of the office than I am, I having been there such a short time, can explain the clerk business better than I can. Mr. Dodge is in the superintendent's office.

Professor DODGE. An appropriation is asked to pay 3 clerks who are now employed and paid from the appropriations for new work. They were originally employed to handle the office work in connection with the rebuilding, but have been necessarily retained on account of the great increase in the clerical work of the office, the records and other work having increased fourfold. Unless provision is made by Congress to pay these clerks they will be discharged on June 30 next, thus reducing the clerical force to such an extent that it will be impossible to keep up the office work. Four clerks are now allowed—2 at \$1,200, 1 at \$1,000, and 1 at \$900. The appropriation asked is to pay 1 additional clerk in each class—3 in all—making a total of 7 clerks to the Superintendent.

As showing the necessity of these clerks, I submit a statement as to the duties performed by them.

CLERKS.

Superintendent's office.—One clerk, stenographer and typewriter to the Superintendent; conducts all correspondence of the Superintendent's office. One clerk as file clerk; assists, if necessary, in stenography and typewriting. Two clerks, keep all records and prepare all reports in connection with the midshipmen and candidates.

Office buildings and grounds.—One clerk, stenographer, typewriter, and file clerk; does all correspondence of this office. One clerk, keeps records, time books, vouchers, and pay rolls of all Naval Academy employees. One clerk, bookkeeper and requisition clerk; prepares all requisitions for purchase of supplies and keeps itemized account, by subheads of appropriations, of all expenditures under the appropriations of the Naval Academy.

The CHAIRMAN. One of these clerks is the clerk to the Superintendent, at \$1,000—

Professor DODGE. All of them are clerks to the Superintendent.

Mr. PADGETT. You are referring to these three clerks to the Superintendent?

The CHAIRMAN. And then there are two to the paymaster.

Professor DODGE. Two clerks to the paymaster, yes; they are the same that we have had; there is no change in the number requested.

Mr. PADGETT. It says there three clerks to the Superintendent, at \$1,200 each, and two clerks to the Superintendent, at \$1,000 each.

Professor DODGE. That is an increase of one in each case, making an increase of two there.

Mr. PADGETT. That makes five altogether.

Professor DODGE. And further along you will find another one. There is another clerk also provided for further along in the bill.

The CHAIRMAN. Yes; way down at the end of page 183.

Professor DODGE. That is an increase of one there.

The CHAIRMAN. "One clerk to the commandant of midshipmen, at \$1,400." That is an increase?

Captain BADGER. Yes, sir. These two men, the clerk to the commandant of midshipmen and the clerk to the paymaster—just below that—are very efficient men and have been in the service many years, and there is no way to promote them without the authority of Congress. The first man referred to has been there twenty-odd years, and the clerk to the paymaster has been there more than thirty

years—Mr. Quinn. As I say, they are most efficient men, they have done good work, and I have recommended that they should have their pay increased \$200 apiece.

The CHAIRMAN. How about this dentist, for which you ask an increase from \$1,600 to \$2,000?

Captain BADGER. We ask that because the dentist is at present underpaid. There have been many presentations of his case to the Department and there has been a special bill introduced—I think last year—to increase his pay. It has also been recommended that there should be two dentists at the Naval Academy. Instead of recommending that, I ask for an increase in this dentist's pay from \$1,600 to \$2,000. I believe he can get along by himself without providing for another dentist. At West Point they have two dentists at \$2,000 each, I think; I know there are two dentists employed there. This man does good work, and I think he ought to get more pay. There are 850 midshipmen to look out for.

Mr. PADGETT. The dentist is paid his salary and he does the work of the midshipmen for nothing, does he?

Captain BADGER. Except for the cost of the materials that he uses.

Mr. PADGETT. Does he just simply charge the cost of that material?

Captain BADGER. Yes, sir.

Mr. PADGETT. Or does he make any profit on his work?

Captain BADGER. He makes no profit whatever on the midshipmen, sir.

The CHAIRMAN. What about this baker, for which you ask an increase from \$600 to \$720?

Captain BADGER. He is the leading baker there. He has had quarters in an old building, on the second floor, but those quarters will be torn down within a very short time. He will soon have to go out in town, pay his rent, and incur other necessary living expenses. As he is a very excellent man, the chief baker, and bakes for the whole Naval Academy, it is recommended that he should have an increase in his pay.

Mr. BUTLER. How much increase is asked?

Captain BADGER. Only \$120; I think, sir.

Mr. MUDD. You allow him, in fact, \$120 for quarters?

Captain BADGER. That is about it.

Mr. BUTLER. How much does he get now?

Captain BADGER. Six hundred dollars.

The CHAIRMAN. Going to page 182, I see you have stricken out "One cook at \$325.50."

Professor DODGE. That is offset by a corresponding increase.

The CHAIRMAN. Then we will pass that. "One bugler, \$480." Is that a new man?

Captain BADGER. That is a new man. We want to have a bugler for the department of ordnance and gunnery, for use with the brigade. We now get buglers from the Navy. They are often sick or else they can not bugle. We are in trouble with buglers constantly and we want a first-class man to be attached to the brigade, who will always be ready for all the drills of the brigade. I think it would be a very wise thing to have him.

The CHAIRMAN. Twenty attendants, I see, have been increased each \$60.

Captain BADGER. Those attendants are men who look out for the buildings, their care, preservation, and cleanliness. They get only \$25 a month. These particular men have no chance to make any money outside of their actual wages. The attendants in the midshipmen's quarters, although it is against the rule, do get fees from the midshipmen for running errands and for small services; these positions are eagerly sought after, but the men referred to are not in a position to make anything except their \$25 a month, and we are constantly losing them. In fact, we can not get good men now for \$25 a month.

The CHAIRMAN. Going to page 183, one mechanic in the department of physics, \$900. That is an increase of \$180.

Captain BADGER. I have a note here in regard to this man. Increase of pay is recommended as the position has now become that of an assistant in the chemical laboratory. This man was taken on as a boy and has been educated in the laboratory. He is represented by the head of the department as a very valuable man, and the head of the department wants to retain him.

The CHAIRMAN. How old a man is he?

Captain BADGER. He is a man of 30 or 32 years of age. He now receives \$720, and it is desired to raise his pay to \$900.

Mr. PADGETT. Before that, it says 2 clerks to the Superintendent. Is that not an increase?

The CHAIRMAN. We have gone over that; Captain Badger has spoken of that before.

Mr. PADGETT. That makes 7 clerks to the Superintendent altogether.

Captain BADGER. Yes, sir.

Mr. PADGETT. An increase of 3. You have 4 now, and you ask for 3 more.

Captain BADGER. Yes. But those men have been there for several years, paid under a different appropriation.

Mr. PADGETT. That is what I was going to ask. Are they transfers from some other fund?

Professor DODGE. They are now paid from the appropriations for new work.

Mr. PADGETT. And this putting them on the civilian list?

Professor DODGE. Yes; we have to get authority from Congress for it, otherwise we will have to dispense with their services altogether after the 1st of July.

Mr. BATES. I have been asked to introduce a bill, and I have introduced it, to increase the number of chaplains. I notice here an organist, at \$300. Is the chaplain who conducts the service a chaplain of the Navy or a civilian?

Captain BADGER. He is a chaplain in the Navy.

Mr. BATES. And he is detailed?

Captain BADGER. Yes, sir.

Mr. BATES. Is he one of the 24 chaplains?

Captain BADGER. This chaplain happens to be on the retired list, but he is one of the regular chaplains of the Navy and was one of the 24.

Mr. BUTLER. That is Chaplain Clark?

Captain BADGER. Yes, sir.

The CHAIRMAN. "Four cooks, \$600" each.

Captain BADGER. Three of these cooks are now paid by the Government and one by the midshipmen. We need them there, and I would like, if possible, to reduce the amount of money the midshipmen have to pay for their mess expenses. They have to pay these cooks themselves.

The CHAIRMAN. Has not the Government paid them heretofore?

Captain BADGER. No, sir.

The CHAIRMAN. Why not?

Professor DODGE. It is only recently that the Government has paid any of the mess expenses. The first appropriation for mess men was made in the act approved June 29, 1906. The employees requested at that time were allowed by the committee. Further experience has shown that the number allowed was not quite enough, and it has been necessary to increase it, at the expense of the mess. The increase now asked is to relieve the midshipmen of the cost. The total increase is:

1 baker, increase.....	\$120. 00
1 cook, at	600. 00
8 assistant cooks, at \$300 each.....	2, 400. 00
	<hr/>
	3, 120. 00
1 cook (omitted).....	325. 50
	<hr/>
Total increase.....	2, 794. 50

Inasmuch as the mess employees are not grouped in the bill, I submit a list showing all mess employees requested on which the changes are noted.

List of mess employees.

1 steward	\$1, 200. 00
1 assistant steward	600. 00
1 baker (increase of \$120).....	720. 00
1 assistant baker.....	540. 00
1 assistant baker.....	420. 00
1 chief cook	1, 200. 00
4 cooks, at \$600 each (increase of one).....	2, 400. 00
8 assistant cooks, at \$300 each (new).....	2, 400. 00
1 head waiter.....	720. 00
2 assistant head waiters, at \$480 each.....	960. 00
2 pantry men, at \$420 each.....	840. 00
Necessary waiters, at \$16 per month each.....	13, 440. 00
	<hr/>
	25, 440. 00

Captain BADGER. These are extra cooks. The trouble with the service of the mess is that we try to serve a hot and complete meal for 850 people in forty minutes. That is the reason we have to have so many cooks and attendants.

The CHAIRMAN. Why were they not asked for before?

Professor DODGE. Those heretofore provided for in the bill were asked for and allowed only two years ago.

The CHAIRMAN. I do not think we have cut off any cooks that have been asked for.

Mr. BUTLER. Has the number of cadets increased since we made the provision for cooks?

Professor DODGE. Yes; it has.

Mr. BATES. I would like to ask if the board of visitors has not recommended increases in that department?

Captain BADGER. My recollection is that their general recommendations have been that the cost of the mess to the midshipman should be reduced as much as possible. Formerly, four or five years ago, the midshipmen paid the whole of the wages of all the mess attendants, practically without exception, which of course took away from their very small salary.

The CHAIRMAN. I see you ask for two electrical machinists instead of one electrical machinist in the department of physics.

Captain BADGER. That is a new man. Under the recommendations of the Wainwright Board, approved by the Navy Department, electrical engineering, which is later to be combined with physics, was instituted, and a large amount of new apparatus is to be furnished so as to train the midshipmen in the electricity used in the Navy, and we ask for an electrical machinist at \$1,000 a year to go into that department.

Mr. BUTLER. Do you mean to say that he is an educated man, that you can get such a man for \$1,000?

Captain BADGER. Yes, sir; we can get a man who is a practical electrician.

Mr. BUTLER. For instance, a graduate of the Boston Technical School?

Captain BADGER. No; I do not believe so. He is not an instructor in the sense that he instructs midshipmen in the theory of electricity. He is the man who does practical work.

The CHAIRMAN. These cooks at \$600 you have stricken out from the bill?

Captain BADGER. Yes.

The CHAIRMAN. Eight assistant cooks at \$300 each.

Captain BADGER. The one cook at \$600 is new, and then we ask for eight assistant cooks at \$300, omitting one at \$325. That covers the whole increase in the mess force. These men have been found absolutely necessary, are employed there now, and have been employed for one or two years, and the midshipmen have been paying for them.

Mr. MUDD. Are those eight assistant cooks all additional?

Captain BADGER. They are all an increase; yes.

Mr. MUDD. Eight assistants, \$300; they are all new?

Captain BADGER. Yes, sir.

Mr. LOUD. What is the average amount required for the mess accounts of midshipmen?

Captain BADGER. Sixty-six cents a day that each midshipman pays out of his salary. That also covers the mess outfit, china, glass, linen, and what they have to pay toward the cooking.

Mr. LOUD. And if these cooks are provided for that would reduce that amount to each midshipman?

Captain BADGER. It would reduce it very little, but it is something. I am trying to make them save \$10 a month for their outfit at graduation from the Naval Academy, and they declare that when they do that they can only save about \$5 a month toward their leave money.

The CHAIRMAN. They get \$500 a year. What do they do with it? What expenses do they have to pay?

Captain BADGER. In the first place they have to pay 66 cents a day to their mess bill. That is \$20 a month, \$240 a year. They have to buy all their clothing, which would be, say, \$100. Then they have to buy their books, which would run probably to \$50 a year. That makes \$350. Then I make them save \$120 every year.

Mr. MUDD. I should think they would have a pretty hard time doing it.

Captain BADGER. Ten dollars a month out of their pay.

Mr. MUDD. What is that money being saved for?

Captain BADGER. That is being saved to buy their outfits when they graduate, and let them leave the Naval Academy out of debt.

Mr. LOUD. What do they have left, then, after paying for all necessities?

Captain BADGER. As I say, they have \$50 or \$60 left after they have paid all their expenses. That \$50 or \$60 goes to them when they take their leave in September.

Mr. LOUD. That leaves practically \$5 a month for pocket money?

Captain BADGER. Yes. If they are economical with their clothing and so on it might be that they could save a little more than that.

Mr. MUDD. Most of them get money from home, I suppose?

Captain BADGER. Yes; though contrary to the rules.

Mr. PADGETT. When I was there a number of the boys told me that except for what they get from home they could not pay for their outfits when they graduate.

Captain BADGER. They buy too much, as a rule.

Mr. PADGETT. And I have found that there are merchants there, or establishments, that are regularly in the business of furnishing the boys their outfits on credit and collecting from their pay through two years or three years, extending over that much time, in partial payments.

Captain BADGER. Yes. They have their nose to the grindstone for two or three years, as a general rule, after they leave the academy.

The CHAIRMAN. But if a boy goes there and devote himself strictly to studying, and is economical, he can go through all right on \$500 a year.

Mr. PADGETT. Do they not get \$600?

Captain BADGER. Well, yes. They get a ration, you know, which means \$609 altogether.

Mr. ROBERTS. I would like to ask whether that 66 cents a day which they pay for their mess includes their ration. You say they are allowed a ration.

Captain BADGER. That is what it costs them to live, that 66 cents. They commute the ration.

Mr. ROBERTS. That 66 cents includes the commuted ration?

Captain BADGER. Yes; that is all they pay, 66 cents.

Mr. ROBERTS. So really, out of the \$500 allowed them, they pay 37 cents a day?

Captain BADGER. Yes; if you put it that way. We commute the rations. The ration is 30 cents a day.

Mr. ROBERTS. That charge is against the \$109 a year.

Captain BADGER. Yes.

Mr. ROBERTS. I would like to ask whether or not the boys at the Academy contribute toward the support of the band.

Captain BADGER. They contribute 35 cents a month each for nine months of the year for music for special occasions. I think that is a good thing, and saves trouble. The band is always ready to do for the midshipmen what is really extra work, and they deserve a little extra. The officers subscribe 70 cents and the midshipmen subscribe 35 cents a month for nine months. When I went to the Naval

Academy this last year I found the methods had been changed; that when the band played at hops, promenade concerts, and entertainments of that kind each bandsman was paid so much—\$3, I think, it was, and \$10 to the leader. It was always a question of how much music you could have; and so, after considering it, I restored the method to the contribution of 35 cents each from the midshipmen and 70 cents from the officers, and now the whole band can be called upon whenever desired.

Mr. ROBERTS. That is a compulsory contribution, is it not?

Captain BADGER. No; it is a voluntary contribution. The midshipmen were asked if they would like to put it back on the old basis, and I had the signature of practically every midshipman asking that it be put back.

Mr. ROBERTS. Do you think it is in keeping with the dignity of the institution that the officers and cadets must contribute to keep a suitable band?

Captain BADGER. No; I do not think it is, but I do think the band should have some little extra for playing for hops, promenade concerts, and so on, and if Congress will increase their pay \$5 a month each we will not have to resort to this contribution to them.

Mr. LOUD. Is there anything else in the same line for the benefit of the midshipmen which you have to recommend?

Captain BADGER. I do not think of anything at this moment.

The CHAIRMAN. The next item is "One draftsman, \$1,200."

Professor DODGE. This appropriation is asked in order that one draftsman, now employed and paid from the appropriation for new work, may be retained. It is necessary to have one at all times as the custodian or file clerk of the several thousand drawings on hand; also to prepare drawings for work in progress, to prepare forms for drill and other schedules, and to do various miscellaneous work. His discharge will be necessary unless provision is made to pay him, but he should be retained.

The CHAIRMAN. Going to page 185, pay of watchmen, mechanics, and others at the Naval Academy, I see you ask for \$125,000, being an increase of \$25,000. What is the necessity for that increase?

Captain BADGER. Professor Dodge is familiar with that and can give it to you in fewer words than I can.

Professor DODGE. That was submitted last year, but was cut out in the Navy Department. They divided our recommended increase of last year in two, and this is a renewal of the previous recommendation. The increases made in this appropriation since the academy has been growing have been used up entirely for labor in two places; first for increased labor in the power house, second increased labor to care for the buildings. The result is that the number of mechanics who do the repair work is practically the same as it was in 1899, when we had about a million dollars' worth of property to care for instead of \$10,000,000 worth, as we have now, and when we had about 250 midshipmen instead of 850 midshipmen, as now. The result is that the buildings are not kept in proper state of repair to prevent deterioration. This simply means a small increase in each repair gang, such as carpenters, painters, masons, and other mechanics.

The CHAIRMAN. Will you please put in the hearing the number of men you employ and what you pay them. Give us the expenditures under this heading.

Professor Dodge. There were 363 names on the December pay roll, but this is not a fixed number. I submit a statement herewith showing in round numbers the present and proposed expenditure by gangs. Forty-five thousand dollars of this amount is paid from other appropriations, leaving \$100,000 as the present and \$125,000 as the proposed expenditure under this appropriation.

Statement.

	Present.	Proposed.	Increase.
1. Watchmen.....	\$18,000.00	\$18,000.00	.....
2. Power plant.....	50,000.00	50,000.00	.....
3. Buildings, care and cleaning.....	20,000.00	24,000.00	\$4,000.00
4. Plasterers.....	5,000.00	8,000.00	3,000.00
5. Painters.....	7,000.00	10,000.00	3,000.00
6. Carpenters.....	13,000.00	20,000.00	7,000.00
7. Masons.....	7,000.00	10,000.00	3,000.00
8. Laborers.....	23,000.00	26,000.00	3,000.00
9. Miscellaneous.....	2,000.00	4,000.00	2,000.00
	145,000.00	170,000.00	25,000.00

Mr. MUDD. Has there been any increase in the pay of the laborers or watchmen?

Professor DODGE. A little increase. When I first went there, in 1899, we could hire all the temporary men we wanted for \$1.04. Labor was then plentiful. The same kind of men get \$1.28 a day now.

Mr. MUDD. I thought there was a proposition for an increase within the last year, when you found you had not enough money, that you had not appropriated enough. Of course there has been an increase in nearly all the navy-yards in the United States, in the matter of the wages of labor.

Professor DODGE. We made an increase in the pay of one particular class of labor, which I think you have been looking after on several occasions, and that is the carpenters. We did make a little increase for them.

Mr. MUDD. How about the ordinary laborers, at \$1.04.

Professor DODGE. We pay them \$1.28 a day now.

The CHAIRMAN. Is that colored labor?

Professor DODGE. Mostly colored labor, yes. They will work for the Government for \$1.28 a day, but they get \$1.75 a day from the railroads, when they work. The employment is not as steady as Government work.

The CHAIRMAN. And I suppose for white labor you have to pay more?

Professor DODGE. No; we pay the same for any kind of labor, whether it is white or colored, but there is not very much white labor to be had there.

The CHAIRMAN. "Pay of steam employees, \$20,343.06." That is the same as last year.

(Reading:) "Special course, Naval Academy, purchase of apparatus and materials for instruction of midshipmen in physical training and athletics, and for all expenses of lectures, including the pay of the lecturer, \$5,000." Please explain that, Captain.

Captain BADGER. In the report of the board to which I have referred, the Wainwright Board, it was strongly recommended that a system of lectures be established and that experts in various lines of

scientific study at the Naval Academy be employed to conduct these lectures. We had available this fund for the "special course" and applied to the Department for permission to employ lecturers under that appropriation, but the Department declined to grant the permission, holding that the appropriation would not cover expenditures of that character. Changing the form and amount in these estimates is with a view to carrying out the recommendations of the board as to a course of lectures.

The CHAIRMAN. The next paragraph is, repairs, \$30,000. That is the same as last year?

Captain BADGER. Yes, sir.

The CHAIRMAN. Can we reduce that? I wish you would furnish a statement showing how that fund was expended during the last fiscal year and put that in the hearings.

Professor DODGE. The appropriation for last year, 1907, was only \$20,000, the Committee having reduced it from \$31,000. It was restored to \$30,000 in the appropriations for the present fiscal year, which, considering the value of the Government plant, is very small. By reference to the appropriation bill for the Military Academy, it will be found that a fixed amount of \$40,000 a year is allowed for repairs, and that, in addition to this, numerous small items of particular work aggregating several thousand dollars more are allowed each year. I submit herewith a statement showing the expenditures for this appropriation under the fiscal year ending June 30, 1907. This expenditure was kept within the authorized amount of \$20,000.

Statement.

Repairs:	
Materials.....	\$9, 623. 79
Labor.....	5, 994. 29
Furniture and fixtures.....	4, 182. 13
Improvements.....	
Total	19, 780. 21

The CHAIRMAN. "Heating and lighting, Naval Academy, \$60,000." You ask for an increase from \$50,000 to \$60,000.

Captain BADGER. It is purely a question of coal, and the great increase in the size of buildings that have to be heated and lighted. We have asked for 7,000 tons of coal—a deficiency. And we estimate now that it will take 20,000 tons of coal a year to heat the Naval Academy and provide necessary power.

The CHAIRMAN. How large a deficiency are you asking for?

Professor DODGE. Twenty-two thousand one hundred and twenty dollars.

The CHAIRMAN. Will this be sufficient to carry you through? [Refers to estimate of \$60,000 for next year.]

Professor DODGE. It is a little doubtful. I thought it would be sufficient at the time the estimate was made, but I have my doubts about it now. We may carry over a little from this deficiency, however, if the weather is favorable. It is largely a question of the weather. At the present time we are not burning more than three-fourths of the coal that we burned at this time last year. If that continues we will have something left over for next year. The result will also depend on the price of coal. This year we are paying \$3.16 per ton, an increase of 41 cents over last year's price.

The CHAIRMAN. "Contingent, Naval Academy. Purchase, binding, and repair of books for the library, and text-books for the use of instructors (to be purchased in open market on the written order of the Superintendent), \$2,500; provided, that section 86 of the public printing act, approved January 12, 1895, is so modified that books for the exclusive use of the Naval Academy library may be bound in half turkey or material no more expensive." What is the object of that?

Captain BADGER. As I understand it, the law forbids the Public Printer to bind in anything but plain sheep or cloth. It is sought to place the Naval Academy library on the same plane as other government libraries specially excepted from the general rule as regards bindings.

Professor DODGE. Here is the public printing act referred to.

The CHAIRMAN. Let us put that in the hearing. I wish you would read that law.

Professor DODGE (reading): "Public printing act, approved January 12, 1895. Section 86. Binding for the Departments of the Government shall be done in plain sheep or cloth, except that record and account books may be bound in russia leather, sheep fleshers, and skivers, when authorized by the head of a department. Provided, the libraries of the several Departments, the Library of Congress, the libraries of the Surgeon-General's office, the Patent Office, and the Naval Observatory, may have books for the exclusive use of said libraries bound in half turkey, or material no more expensive."

The CHAIRMAN. How is it at the Military Academy, West Point?

Professor DODGE. That is not included in the law.

The CHAIRMAN. That is not included?

Professor DODGE. No.

The CHAIRMAN. This provides for the purchase of books for the library and also text-books for the use of instructors. This proviso would allow their text-books to be bound in this way.

Captain BADGER. There is no such intention.

Professor DODGE. It is just a case of rebinding books that are worn out; that is all.

Mr. GREGG. This limits it to the library.

The CHAIRMAN. Oh, yes; further down.

Mr. ROBERTS. If I understand, you can get a book bound like that now. [Exhibiting book on the table.] That is sheep, I think.

Captain BADGER. Yes, sir.

Mr. ROBERTS. Is not that a substantial binding?

Captain BADGER. That would look well in a law library, but we have 50,000 books in the Naval Library, books of all kinds—

Mr. ROBERTS. But it is a working library, is it not?

Captain BADGER. Yes, sir.

Mr. ROBERTS. It is not an ornamental library, it is not a library of fine bindings?

Professor DODGE. Those wear out very fast. We want to get something that will stand the wear.

Mr. ROBERTS. Would not this [referring to the binding of the books on the table] wear as well as what you ask for?

Professor DODGE. No, sir.

The CHAIRMAN. Here is a reduction on page 189, a reduction from \$15,000 to \$12,500. That requires explanation.

Captain BADGER. Special amounts have been appropriated for several years for the marine engineer and naval construction department, to provide apparatus generally. We find now that \$12,500 will do the work that we need there.

Professor DODGE. We cut it down \$15,000 last year. It was \$30,000 before that.

The CHAIRMAN. Does that cover the Naval Academy?

Captain BADGER. Yes, sir.

The CHAIRMAN. Are there any public works at the Naval Academy?

Captain BADGER. Yes, sir; there is a new wharf and water supply.

The CHAIRMAN. Under "Public works under the Secretary of the Navy," page 117, "for enlarging the water plant of the Naval Academy, enlarging the reservoir, installing additional pumps, filters, piping and strainers, and for all other materials and labor for this purpose, \$40,000." Please explain that.

Captain BADGER. I will let Professor Dodge do that. He understands it.

Professor DODGE. We have installed a plant that cost \$45,000 and have paid for it from the appropriation for new works. We did not ask any additional money, although it was not a part of the original estimate. It now furnishes all the water used at the academy, the marine barracks, and naval hospital; but the demand is increasing, and it will have to be a little larger to take care of the demand. The plant at present is saving us about \$20,000 a year water bills. We have already, as I say, spent \$45,000 for the plant. We have already saved over \$20,000 in water bills from the use of it, and the saving will run from \$18,000 to \$20,000 from now on, which would soon pay for this expenditure, and, looking at it as an investment, it will be a pretty good one. The trouble is we are supplying not only the Naval Academy, but ships that come there and the marine barracks and the naval hospital.

The CHAIRMAN. Before you paid for your water?

Professor DODGE. Yes; we paid 1½ cents per hundred gallons for it. Then we sunk a well and at first used it on a small scale. Then we installed a pumping plant, reservoir, and filters to remove the iron with which the water is impregnated. If we were paying the water company for the water now used the bills would run as high as \$18,000 to \$20,000 a year. But the operating cost of the water plant does not exceed \$1,000 a year.

The CHAIRMAN (reading): "For the construction of two piers, including the necessary dredging, sand filling, and riprapping, \$200,000."

Mr. TALBOTT. To interrupt for one moment, what use is made out of the old Naval Hospital down there?

Professor DODGE. It is not used for anything except storage.

The CHAIRMAN. What about these piers?

Captain BADGER. That is to build a new wharf at the Naval Academy. The old wharf is in a very dilapidated condition. The piling is nearly destroyed, and it is entirely inadequate for the uses of a wharf at the school. We have more ships than can be put alongside of the wharf. Apparently, we are now going to have permanent ships, for practice ships, which is the best method that could be adopted for a good practice squadron. We have to moor the larger ones in the streams now, we can not put them alongside of the

wharf. There are also a large number of steam launches and other small craft, lighters, etc., for the instruction of the midshipmen and the convenience of the station, and we want to protect them from damage. For all these things a wharf is absolutely essential.

The CHAIRMAN. Was there not enough money left from the reconstruction of the Naval Academy to pay for this?

Captain BADGER. If we had not paid for the hospital, \$200,000, and the dredging of the channel, \$200,000, and putting in another floor in the quarters, \$500,000, we would probably have had the money to do it.

Mr. BUTLER. What is the necessity for the second floor?

Captain BADGER. That is because the number of midshipmen was increased after the original estimates were made. The plan was originally for 500 or 600 midshipmen, I think, and when it was found that the number would approach 1,000 another story to the building was added. In the case of the channel—dredging the 30-foot channel from the bay—was never in the original estimates.

The naval hospital was also an unexpected expenditure. Really nearly a million dollars' worth of work has been paid for that was not contemplated when the original estimates were submitted.

Mr. MUDD. Was never in the original plan?

Captain BADGER. No, sir.

Mr. PADGETT. In connection with that, I have heard it stated that while additional buildings were built out of the appropriation, yet at the time this appropriation was made that that land that was left out in the purchase of the squares was contemplated and expected to be purchased with that fund.

Professor DODGE. No; it was never in the estimate. We bought as many feet of ground outside the wall from the residents of Annapolis as was contemplated in the original estimate, and then any further purchases were stopped by act of Congress, as a clause was placed in one of the acts appropriating for the work prohibiting the purchase of any more land. If we had had the money, we could not have gone any further as to purchases of land.

Mr. PADGETT. I understand; but I understood the original estimate was made with a view of taking the whole square and you bought less land than you intended.

Professor DODGE. No; the original estimate for the purchase, inclosing, and improvement of the property, which was made before any appropriations for the work had been made, amounted to \$261,000. The actual expenditure for this purpose was \$282,832.61. The estimate approved by the Secretary of the Navy October 3, 1900, contained an item for the purchase of the property only, amounting to \$135,000. The actual purchase price of the property was \$173,597.64. The cost of the boundary wall, removal of old buildings, and filling and grading the property brought the total cost under this head to \$282,832.61.

Mr. ROBERTS. I would like to ask the Captain where this new pier will be located.

Captain BADGER. In the neighborhood of the present one. We have a plan of it here.

Mr. ROBERTS. What is the nature of the construction of this pier?

Captain BADGER. We have estimated on concrete piers.

Mr. ROBERTS. There will be no more piling used?

Captain BADGER. No; and it should be practically indestructible.

Mr. ROBERTS. When you cut down the number of boys there, will you need all this pier accommodation for your small boats, and so on?

Captain BADGER. I think so. The place is bound to have a very large equipment, and the practice ships should lie alongside the wharf when not cruising. They are not only useful for the summer cruises, but they are very essential during the winter for the midshipmen. I have to take them out to the ships in boats now and we lose much time where every minute is valuable. It is not practicable to train the midshipmen as we might train them if we had the ships more easily accessible.

Mr. ROBERTS. One further question, although on a different line. Has anything been done about fixing up a suitable gynasium there or changing that old building?

Captain BADGER. Oh, yes; there is a new gynasium there which was erected in what was known as the old seamanship building at a cost of \$150,000. We expect to go into that next month.

Mr. ROBERTS. What did that come out of?

Captain BADGER. That came out of the appropriation for rebuilding the Naval Academy.

The CHAIRMAN (reading). "For the erection of three fireproof buildings, to be used as magazines and filling house, and including necessary grading, and landing stage, \$7,000."

Captain BADGER. There is no place to store ammunition at the academy. We used to have a magazine built of wood, but it was dangerous and its use was discontinued some time ago. We want to build two small, safe magazines, one to hold smokeless powder, the other to hold black powder and other explosives, and a small filling room for handling the powder, to be erected on the Government reservation opposite the academy. We now have absolutely no place, and we are transferring the ammunition around. The *Hartford* has lately been used for the stowage of explosives, but now the *Hartford* has gone away and we have it aboard the *Olympia*. If all the ships should be away at once, as is frequently the case in summer, there is no proper place to stow ammunition.

Mr. BUTLER. You have abandoned your old magazine?

Captain BADGER. We abandoned it as dangerous.

Mr. PADGETT. It was developed here in the hearings the other day that the Navy has a very large amount of brown powder on hand, supposed to be useless, but was regarded as dangerous. I don't know whether you could use it. Of course we do not want to subject the boys to any danger, but would that brown powder be available for any of your purposes?

Captain BADGER. As far as I know brown powder is a stable powder—the brown powder we had in the service before—and I don't know of any reason why it should be more dangerous than black powder.

Mr. PADGETT. It was said the other day that we had a large amount of brown powder, and about the only use we could put it to would be to experiment, to get the nitrate out of it.

Captain BADGER. I think it is perfectly stable.

The CHAIRMAN. This covers Captain Badger's estimates for the Naval Academy. There are a couple of questions that I want to ask you, Captain. The first question relates to hazing. Is there any hazing going on there now?

Captain BADGER. I believe none at all, sir.

Mr. LOUD. Any running?

Captain BADGER. No, sir.

The CHAIRMAN. You have not seen any evidences of it?

Captain BADGER. No; there is no more hazing at the Naval Academy and no more running. That can not be carried on without the connivance of the first class. The practice of hazing or running can escape the observation of the officers for a while, because there are not enough of them to keep all the midshipmen under constant observation, but they can not escape the observation of the first class. They know that, and if the first class men are opposed to it it can not exist, and it does not exist. When I went to the Naval Academy last July, I found a part of the second class, on account of the scarcity of practice ships, had been retained there for instruction and for the instruction of the new fourth class. After I had been there three or four weeks I found that there was some little hazing going on—hazing of the fourth class by the second.

I took the thing in hand and gave directions to prepare the *Hartford* for the reception of all the second class men then at the academy, where I proposed to keep them until the school started up in the fall, unless I could feel assured that any illegal interference with the fourth class men should cease immediately. I am of the opinion that only a small part of the upper class men then at the academy were involved, and when the situation was explained to them they voluntarily informed me, through the commandant of midshipmen, that the practice should cease during the rest of the summer. They lived up to their agreement, as they always do, and there was no further trouble.

Mr. BUTLER. Can you give me the date of the act of Congress on the subject of hazing?

Captain BADGER. No; I can not.

Mr. BUTLER. But it was prior to the time that this misconduct you speak of took place, was it?

Captain BADGER. Yes.

Mr. PADGETT. Mr. Butler means the hazing bill passed a year ago.

Captain BADGER. Yes. The hazing I spoke of happened subsequent to that. When the midshipmen returned from leave, at the end of September, I gathered the whole first class together and made them a little address upon the subject of hazing and other matters of regulation and discipline. I wanted to know specially what they thought of hazing, and suggested that, after immediately discussing the matter among themselves, they send a committee to tell me how they stood.

In about fifteen minutes the committee arrived and informed me that the first class had decided unanimously not to permit hazing, running, or anything contrary to the law and regulations in that regard, while they remained at the academy. I said, "All right," and so the matter stands in a very satisfactory condition for this year at least.

Mr. BUTLER. Where was this first class at the time you speak of?

Captain BADGER. In memorial hall.

Mr. BUTLER. I mean at the time these acts of misconduct you spoke of took place?

Captain BADGER. The first class then was at sea on the practice ships. These acts were done by the second class. But there is no

hazing there now, and there will be none next year, I think. Commander Benson, commandant of midshipmen, is exceptionally able in handling men and, though strict in his requirements, possesses the confidence and respect of the midshipmen in a high degree.

Mr. PADGETT. Do you still maintain the system of selecting the petty officers from the first class?

Captain BADGER. Yes.

Mr. PADGETT. The cadet officers are all from the first class?

Captain BADGER. Yes. I believe that to be the best method that can be adopted. I notice in the report of the Superintendent, U. S. Military Academy, an expression of his opinion that the first class should be made to feel greater responsibility in the maintenance of discipline in the corps of cadets. At the Naval Academy there has always been an attempt to work along those lines.

Mr. PADGETT. They now take the sergeants from the second class and the corporals from the third class, do they not?

Captain BADGER. Yes, sir; I think so.

Mr. PADGETT. Do you find the cadet officers are in sympathy with your movement to prevent hazing and enforce the regulations with reference to it, or is there a disposition to wink at it?

Captain BADGER. Absolutely no disposition to wink at it. I believe they are perfectly fair and square in their statement and in their desire to do what is right. The present first class is in excellent condition, and I have no doubt the second class when they come on will do the same thing—when they feel their responsibility.

Mr. ROBERTS. Have there been established at the academy certain rates and rules that did not exist before the hazing trouble?

Captain BADGER. Some. Principally in regard to extra leave privileges. In the main they are of minor importance.

Mr. ROBERTS. And have they not had considerable effect in stopping what was called running? I do not think they call it hazing.

Captain BADGER. I do not know. I think the tendency of all boys is to haze a newcomer.

Mr. ROBERTS. Have there not been some things established by rule now, taking the place of customs that had been in vogue, recognizing something officially as a privilege, and has that not had a marked effect in stopping general hazing?

Captain BADGER. I do not know. You give a boy a privilege for a year or so and he generally forgets what is was given to him for, assumes it as a right, and takes a fresh start.

Mr. PADGETT. To illustrate, the regulations, as I understand it, now recognize the right of the first class exclusively to Lovers lane. I believe that is now recognized in the regulations?

Captain BADGER. Yes; by Executive order.

Mr. PADGETT. And by the consent of the whole school?

Captain BADGER. Yes.

Mr. LOUD. When I was there, I remember all the midshipmen except the first class were made to turn sharply at right angles in going down a certain walk, while the upper class men were allowed to cut the corner. Does that exist still?

Captain BADGER. No; that does not now exist.

The CHAIRMAN. I want to ask one other question that relates to the number of midshipmen at the Naval Academy. We increased

the number, and I understand that last year that was the first year that we graduated a large class.

Captain BADGER. Yes.

The CHAIRMAN. How many in last year's class?

Captain BADGER. Roughly, two hundred.

The CHAIRMAN. How many will be in this year's graduating class?

Captain BADGER. The same number, about.

The CHAIRMAN. And that will run along, will it, year after year?

Captain BADGER. Until 1913.

The CHAIRMAN. I am trying to get at the real question now, and that is whether or not you have looked into the matter sufficiently to be able to state whether or not there is any necessity for legislation between now and 1913, looking to cutting down the number of midshipmen?

Captain BADGER. I have not looked into it, sir.

The CHAIRMAN. Of course that question would have to be based on the probable increase in the Navy.

Captain BADGER. I can give you how many midshipmen the estimate was from the Naval Academy who would be graduated. The last class enters in 1913 and finally graduates in 1919. There will be about 2,200. I have the estimate by years—what the classes will be. About 400 will disappear by casualties and so forth, and at the end of 1919 there should be about 1,800; 1,800 should have graduated under the workings of this law and be in the Navy in 1919.

The CHAIRMAN. Does that take into consideration those that fail on their examinations?

Captain BADGER. That takes into account everything; yes.

Mr. ROBERTS. I wish the Captain would put that in the hearing, that statement of so many each year.

(See accompanying memorandum.)

Mr. PADGETT. The graduations will run beyond 1913. Their appointment runs to 1913.

Mr. BUTLER. I thought it was 1911.

Captain BADGER. Nineteen hundred and thirteen.

The CHAIRMAN. We can find it right in this book.

Captain BADGER. That 2,200, my impression is, covers the working of that law.

Mr. BUTLER. That would make it 1917, then. But of course if you are going to keep up the same proportion we will require the statute to be changed.

Mr. PADGETT. There will be no more short-term graduates?

Captain BADGER. No; there will not. Of course the Department can change that at any time.

The CHAIRMAN. This closes the Naval Academy appropriations.

Thereupon, at 12.10 o'clock, the committee adjourned.

U. S. NAVAL ACADEMY,
Annapolis, Md., January 21, 1903.

MEMORANDUM.

Estimate of the number of officers who will be added to the Navy by the ten classes of midshipmen affected by the act of March 3, 1903, doubling the number admitted to the Naval Academy. The classes in question are those entering from 1903 to 1913, inclusive, and graduating (on completion of the two years' cruise) from 1909 to 1919, inclusive.

Year of admission.	Estimated number admitted.	Year of final graduation.	Estimated number of graduates.
1903.....	a 213	1909.....	247
1904.....	b 297	1910.....	224
1905.....	c 237	1911.....	178
1906.....	d 202	1912.....	153
1907.....	e 273	1913.....	206
1908.....	281	1914.....	211
1909.....	255	1915.....	193
1910.....	229	1916.....	172
1911.....	258	1917.....	193
1912.....	267	1918.....	201
1913.....	259	1919.....	195
		Total.....	2,172

a Number actually admitted, 313; number in the service at this date (on two years' cruise preliminary to final graduation), 210 (37 less than estimate).

b Number admitted, 301; number in the service at this date (present first class at the Naval Academy), 201 (23 less than estimate).

c Number actually admitted, 247; number in the service at this date (present second class at the Naval Academy), 183.

d Number actually admitted, 217; number in the service at this date (present third class at the Naval Academy), 179.

e Number actually admitted, 294; number in the service at this date (present fourth class at the Naval Academy), 233.

[No. 7.]

COMMITTEE ON NAVAL AFFAIRS.

Friday, January 17, 1908.

The committee met at 2 o'clock p. m., Hon. George E. Foss in the chair.

**STATEMENT OF SURG. GEN. P. M. RIXEY, CHIEF OF THE BUREAU
OF MEDICINE AND SURGERY.**

The CHAIRMAN. Page 135 of the bill. Public works under Bureau of Medicine and Surgery. Naval Hospital, Pensacola, Fla.; for the enlargement of the present hospital buildings and the erection of new wards, \$50,000. Please explain that.

Admiral RIXEY. There was an appropriation of \$25,000 last Congress, which was insufficient, and we are holding it and asking you to give us \$50,000 on this appropriation; a total of \$75,000, to complete the work.

The CHAIRMAN. Last year we gave you \$25,000 for the renewal of the present hospital building. Have you renewed those?

Admiral RIXEY. As just stated, \$25,000 was insufficient to do it.

The CHAIRMAN. Naval Hospital, Puget Sound, Washington: For the erection of naval hospital buildings, \$75,000, as authorized by the naval act of March 2, 1907, \$75,000. We shall have to expend \$150,000, so it will take \$75,000 to complete the hospital.

The CHAIRMAN. And this completes the appropriation?

Admiral RIXEY. Yes.

Mr. BUTLER. What is the capacity of the hospital at Puget Sound?

Admiral RIXEY. It has 18 beds. There are about 24 cots in tents and 8 beds for contagious cases in an isolation ward.

Mr. BUTLER. What will be the accommodations of the new hospital building when erected and finished?

Admiral RIXEY. One hundred and fifty beds.

The CHAIRMAN. "Naval hospital at Annapolis, Md.: For the erection of new wards, \$85,000; quarters for medical officer in command \$15,000; for two quarters for the medical staff \$25,000; in all, \$125,000."

Admiral RIXEY. The money allotted for this hospital was not sufficient to complete the building on the plans laid down, cutting off the contagious wards entirely, and one other ward. This hospital should be completed and quarters for the medical officers provided. At present the medical officers are quartered in Annapolis, about 1½ miles from the hospital, a most unsatisfactory arrangement. The need of the contagious wards have been demonstrated in the past three months, owing to an epidemic of diphtheria (55) cases, when the patients had to be quartered in tents.

The CHAIRMAN. Then you feel as though you need the extensions at the Naval Academy?

Admiral RIXEY. Yes.

The CHAIRMAN. "Naval hospital, Norfolk, Va.: For the renovation of the present hospital buildings, etc., \$100,000."

Admiral RIXEY. We want \$100,000 this year to complete the appropriation for work already under contract.

The CHAIRMAN. That completes it.

Admiral RIXEY. Yes; I do not mean to say that it entirely completes the hospital, because we have to supplement to a certain extent the building of these hospitals out of the hospital fund. The Secretary of the Navy is the sole trustee of this fund and can and has authorized the use of this fund for remodeling or building hospitals, etc., provided Congress has not already made appropriations for specific purposes and fixed a limit upon the expenditures.

The CHAIRMAN. "Naval hospital, Great Lakes, for the erection of naval hospital buildings to cost not to exceed \$250,000, \$100,000." What about that?

Admiral RIXEY. We need \$100,000 appropriated at this session, and the architect says to complete the hospital in keeping with the other buildings he must have \$250,000, thus leaving \$150,000 to be appropriated next year.

The CHAIRMAN. How many would that hospital accommodate?

Admiral RIXEY. It will accommodate from 150 to 200 patients.

The CHAIRMAN. Could not they get this hospital out of the fund for the buildings? We provided \$2,000,000 for the erection of buildings out there.

Admiral RIXEY. Admiral Ross says that Congress must appropriate specifically for the hospital and for officers' quarters, and that nothing can be spared for hospital purposes from the \$2,000,000.

The CHAIRMAN. How long does it take to build it?

Admiral RIXEY. If authorized now it is hoped that the hospital could be occupied in 1910—possibly sooner, as preliminary plans have been prepared.

The CHAIRMAN. Could not you build it for less?

Admiral RIXEY. The architect says not.

The CHAIRMAN. Are the prices for labor and material higher now?

Admiral RIXEY. Yes.

Mr. BUTLER. Doctor Rixey, your estimate for this year on this item of public works under your Bureau, is a good deal higher than the amount of money that was awarded you for the same purposes last year. Do you feel like indicating which part of these suggested appropriations you must have, that you really should have perhaps first, so that if we can not give you all the money you ask for, you will know we are doing the best we can.

Admiral RIXEY. Last year the estimate was \$430,000 and now \$450,000—only \$20,000 difference. All of those asked for have been approved by the Secretary and are really important; it is work that ought to be finished. The hospital at the training station should be finished before a large number of young recruits are sent to this station.

Mr. BUTLER. What sort of hospital accommodations have we on the Pacific coast?

Admiral RIXEY. We have the Mare Island Hospital.

Mr. BUTLER. What accommodations have we at that point?

Admiral RIXEY. We have beds in hospital for about 150 patients, and by putting out tents, we can care for about 200 men additional,

but it must be remembered that caring for sick in tents is the same as the emergency care of the sick in the field.

Mr. LOUD. How many will the hospital ship take care of?

Admiral RIXEY. If it is crowded it will take care of from 250 to 300 men; 200 is the regular complement.

Mr. LOUD. That ship is over there now, I understand.

Admiral RIXEY. Yes.

Mr. BUTLER. Have you any other accommodations?

Admiral RIXEY. At Puget Sound they have a makeshift for a hospital until we get the new hospital complete. We are pushing that all we can. The contract has not been made as yet.

Mr. BUTLER. Then we have only two hospitals on all of that coast?

Admiral RIXEY. One hospital and a makeshift for a hospital.

Mr. LOUD. Haven't you a marine hospital at San Francisco?

Admiral RIXEY. The Public Health and Marine-Hospital Service have a hospital at San Francisco.

Mr. LOUD. The Marine-Hospital Service is well supplied out there?

Admiral RIXEY. Only a small one at Port Townsend and a larger one at San Francisco. At other places they make use of civil hospitals where practicable.

Mr. LOUD. Then in case of emergency we could utilize that?

Admiral RIXEY. We could utilize that service as well as the civil hospitals, and we may have to do so, but we must not rely on this, as they have their own sick to look out for, and these accommodations are often insufficient for their own needs.

Mr. LOUD. And with the whole fleet out there it would be something unusual?

Admiral RIXEY. We will have 25,000 men on the Pacific side, and the Department has already been notified by this Bureau that an additional hospital ship may be required, and a request has been made that some ship be assigned, so that we may make plans for her arrangement for hospital purposes without loss of time if needed.

Now, while on this subject of hospital ships, I want to say that there is no question, in my mind, but that an appropriation should be made at this session of Congress to build a hospital ship, a modern ship, something that would be a model for other hospital ships in time of war. A ship specially designed as a hospital ship has never been built. Such an one would be the greatest improvement on the makeshifts used in the past.

Mr. BUTLER. Has it been recommended by the Secretary?

Admiral RIXEY. It has been recommended to the Secretary. In my report this year I recommended one for the Atlantic and one for the Pacific, and if you are going to increase the Navy to 60,000 men you will need them.

Mr. BUTLER. How much accommodation on a hospital ship should you have to care for the ordinarily sick of the fleet such as is going around to the Pacific?

Admiral RIXEY. One hospital ship carrying from 200 to 300 beds would be, in time of peace, necessary for from 15,000 to 25,000 men.

Mr. BUTLER. But that is not intended for anything like an epidemic?

Admiral RIXEY. No.

Mr. BUTLER. Just ordinary cases.

Admiral RIXEY. The average number of hospital cases for 15,000 to 25,000 men would keep a hospital of 250 beds busy under the most favorable conditions, epidemics or war not considered.

The hampered space for the accommodation of the sick on a battle ship, the poor location, the inadequate light, the defective ventilation, the lack of appliances, food, and limited skilled force, the nonseparation of cases, the depressing influences from a supposed lack of sympathy, and the absence of facilities so needed in many cases are all factors of great moment to the afflicted. In addition the incessant hum and noise of a battle ship make it no place for a sick man, and the sooner he is in a hospital, whether ashore or afloat, the better for the patient.

Besides, a hospital ship would not only insure the necessary comfort of all patients and give them the best chance of recovery, thus minimizing permanent invalidism and consequent pension drains, but would be a source of comfort to the sailors' families left at home in the thought that the Government is doing all possible for those who might be stricken in its service.

Such a vessel would not only add to the efficiency of the fleet, but to the individual ship. The sick quarters on the single ship could then be reduced, the comforts of the sick and injured would be greater, a sympathetic and quiet environment would be secured, which is essential to success in grave troubles and shortens and lightens the illness by the increased comforts. We would secure the numerous advantages that we all know exist and are obtainable on shore, for a hospital ship offers more commodious accommodations and is fitted with every modern appliance for the comfort and safety of the sick and injured, and in time of war is protected by the Red Cross flag. Its equipment comprises an up-to-date and completely fitted operating room, an X-ray outfit, extensive laboratories (bacteriological and chemical), an isolation ward for contagious diseases, accommodations for the humane care of insane, dental provisions, a disinfecting plant for the ship and those with which it comes in contact, and a supply of medical and surgical stores for its own use and to replenish the supply of the ships in the fleet.

Mr. ROBERTS. You spoke a moment ago about accommodating as many as 500 at San Francisco by putting a number under tents. Is it suitable at this time of the year to keep sick men under tents?

Admiral RIXEY. Tents can be used when no hospitals exist or to supplement the hospitals in an emergency, when accommodations are wanting. But tents must be regarded in the light of temporary expedients and are never altogether satisfactory for the best care of the sick, except possibly for the treatment of tuberculosis and allied troubles.

Mr. ROBERTS. But you would not put them under tents if you could put them under cover of another kind.

Admiral RIXEY. Not if we had a good hospital or hospital ship. I have here a plan of a hospital ship to give you an idea of how these ships are constructed and arranged. [Explains plans to members of the committee.]

The CHAIRMAN. "Page 142, Bureau of Medicine and Surgery. Medical Department: For surgeon's necessities for vessels in commission, navy-yards, naval stations, Marine Corps, and for the civil

establishment at the several naval hospitals, navy-yards, Naval Medical School, naval medical supply depot, and Naval Academy, \$270,000," which is an increase of \$15,000. Please explain why that is necessary.

Admiral RIXEY. In my hearing of last year you asked the question as to why the Bureau wanted an increase of \$15,000 in the appropriation for the Medical Department, and I told you that I wanted it because you proposed to increase the service by 1,500 sailors and 1,239 marines additional. You cut out the \$15,000 but allowed the increase in the number of men. So we have the sick of 2,739 additional men to care for. This increase in personnel demands this additional provision for the care of their sick.

The CHAIRMAN. How much of a deficiency this year?

Admiral RIXEY. It would be about \$30,000.

Mr. BUTLER. On this estimate alone?

Admiral RIXEY. Yes, sir; \$15,000 on account of additional men taken in, and the other \$15,000 because of the unusual demand for medical supplies on account of the fitting out of the fleet.

The CHAIRMAN. Why do you change the name of Naval Medical School and naval medical supply depot?

Admiral RIXEY. Because it is authorized by the Secretary of the Navy to more clearly indicate the functions of these institutions.

The CHAIRMAN. "Naval hospital fund, for maintenance of the naval hospitals at the various navy-yards and stations, and for care and maintenance of patients in other hospitals, at home and abroad, \$40,000," the same as last year.

Admiral RIXEY. We can do without that. The hospital fund is sufficient for the maintenance of all-hospitals and the hospital fund is also sufficient to-day to do most of the new construction. After you have given us what I have asked for this year, I think that if the Secretary authorizes it, the hospital fund will maintain, remodel, and build new hospitals as required. It has increased very much in the last year.

The CHAIRMAN. How much did it amount to?

Admiral RIXEY. In reply I would state that the condition of this fund is as follows, viz:

Balance on hand July 1, 1906.....	\$732, 156. 12
Transferred to credit since July 1, 1906.....	741, 965. 16
Total.....	1, 474, 121. 28
Expended since July 1, 1906—	
By requisitions.....	\$326, 728. 60
By Auditor's debits.....	92, 216. 34
	<hr/> 418, 944. 94
Balance on hand June 30, 1907.....	1, 055, 176. 34

Expenditures at the several naval hospitals under "Naval hospital fund, 1907," and "Naval hospital fund" on account of the fiscal year 1907, including all vouchers received in the Bureau to September 15, 1907, as follows: Naval hospital, Portsmouth, N. H., \$9,207; naval hospital, Chelsea, Mass., \$27,692; naval hospital, New York, N. Y., \$54,882; naval hospital, Philadelphia, Pa., \$32,470; naval hospital, Washington, D. C., \$12,815; Naval Medical School Hospital, Washington, D. C., \$24,686; naval hospital, Annapolis, Md.,

\$33,927; naval hospital, Norfolk, Va., \$62,228; naval hospital, Port Royal, S. C., \$2,047; naval hospital, Pensacola, Fla., \$13,134; naval hospital, San Juan, P. R., \$14,603; naval hospital, New Fort Lyon, Colo., \$37,858; naval hospital, Mare Island, Cal., \$49,834; naval hospital, Puget Sound, Wash., \$5,627; naval hospital, Sitka, Alaska, \$644; naval hospital, Canacao, P. I., \$39,172; naval hospital, Yokohama, Japan, \$19,151.

At the naval hospital, New Fort Lyon, Colo., established by Executive order of October 25, 1906, work is under way and authorized for the construction of a water system, wards, subsistence buildings, quarters, laundry, wells, etc., amounting to approximately \$108,000.

The naval hospital, Canacao, is being enlarged by two additional wards and doubling the capacity, under the supervision of the Department of Yards and Docks, and there is about to be installed an ice-making plant and garbage crematory at an approximate expense of \$117,000.

For the repair, improvement, and extension of naval hospitals the Bureau proposes to expend from the naval hospital fund the following sums, under authority of section 3 of an act establishing navy hospitals (approved February 26, 1811; altered and amended by act approved July 10, 1832):

Naval hospital:	
Portsmouth, N. H.	\$150,000
Chelsea, Mass.	200,000
Newport, R. I.—	
Site	\$75,000
Buildings	200,000
	<hr/> 275,000
Philadelphia, Pa.	100,000
San Juan, P. R.	75,000
Guantanamo, Cuba	50,000
Mare Island, Cal.	25,000
Naval Medical School Hospital, Washington, D. C.	75,000
	<hr/>
Total	950,000

From the foregoing statement of the condition of the naval hospital fund it seems probable that if Congress appropriates, under public works for 1909, \$450,000, as follows:

Naval hospital, Pensacola	\$50,000
Naval hospital, Puget Sound	75,000
Naval hospital, Annapolis	125,000
Naval hospital, Norfolk	100,000
Naval hospital, Great Lakes	100,000

and \$150,000 in the year 1910 for the completion of the naval hospital, Great Lakes, that the hospital fund will be sufficient to meet all the ordinary requirements under public works as well as for the maintenance of hospitals thereafter.

The CHAIRMAN. Please put those figures in your hearing, so they will be accurate.

Admiral RIXEY. The above statement is, I think, accurate and made after careful consideration.

Mr. BUTLER. There is deducted from the pay of each enlisted man in the Navy the sum of 20 cents a month.

Admiral RIXEY. Yes; that was the beginning of the hospital fund. Its origin and its whole history is as follows:

THE NAVAL HOSPITAL FUND.

The marine hospital fund was created for the beneficent purpose of caring for the sick and disabled officers and enlisted men of the Navy and Marine Corps by acts of Congress approved July 16, 1798, and March 2, 1799, and was applicable for the relief of merchant seamen and of officers, seamen, and marines of the Navy. On account of the impossibility of maintaining discipline among naval patients in civil hospitals, Congress by act of February 26, 1811, provided for the establishment of naval hospitals, and directed that the sum deducted from the pay of officers, seamen, and marines of the Navy be appropriated out of the marine hospital fund for the purpose of a naval hospital fund. The naval hospital fund, therefore, dates its separate existence from February 26, 1811. By this act the Secretary of the Navy, the Secretary of the Treasury, and the Secretary of War were designated as the Commissioners of Navy Hospitals. Provision was made for the purchase of sites and buildings for hospitals and for the erection of buildings and that all expenditures for such purposes should be defrayed from the naval hospital fund. The act of July 10, 1832, for the regulation of the Navy and privateer pension and navy hospital funds provided that the Commissioners of Navy Hospitals should close their accounts as trustees of the navy hospital fund and pay from the balance of cash in their hands and assign and transfer all certificates of stock and other property belonging to said fund to the Treasurer of the United States for the use of the Secretary of the Navy for expenditures on account of navy hospitals; also that so soon as said assignment and transfer should be made the said Commissioners should be released and discharged from all further trust connected with the naval hospital fund, and the Secretary of the Navy constituted the sole trustee of said fund, and that it should be his duty to direct and control the expenditures out of the fund.

Its sources of revenue have been provided by the acts establishing it by subsequent legislation. By the act of March 2, 1799 (sec. 1614, R. S.), 20 cents per month is deducted from the pay of each officer, seaman, and marine, and credited by the Auditor to the naval hospital fund. The act of February 26, 1811 (sec. 4812, R. S.), provides that the naval hospital fund shall be allowed the value of one ration per day for every officer, seaman, and marine during his continuance in hospital (the value of the ration is fixed by sec. 1585, R. S., at 30 cents), and that pensions (sec. 4813, R. S.) of officers, seamen, and marines shall be paid by the pension agents to the Secretary of the Navy for credit to the naval hospital fund by the Auditor.

The acts of February 26, 1811, and July 10, 1832 (sec. 4809, R. S.), provide that all fines imposed by court-martial shall go to the credit of the naval hospital fund. The act of March 3, 1899, so far amended section 4813, Revised Statutes, that the pensions of the beneficiaries of the Naval Home while in naval hospital should be credited to the naval hospital fund.

Since the 1st day of July, 1900, all forfeitures on account of desertions have been passed to the credit of the naval hospital fund by the provisions of the naval act of June 7, 1900.

By the acts of June 12, 1858, and July 2, 1890, \$50,000 and \$92,000 were passed to the credit of the naval hospital fund. The former was appropriated as the value of a tract of land belonging to the naval hospital, Chelsea, ceded by act of March 3, 1855, to the Marine-Hospital Service. The latter was the proceeds of a sale of land belonging to the naval hospital, Brooklyn.

The naval hospital fund is chargeable with all expenses of purchases of sites and buildings, the erection of buildings, and the maintenance of the hospitals, including medical and surgical supplies, provisions, fuel, equipment, ambulances, horses, cows, etc., and all incidental expenses necessary for the proper conduct of the hospitals; it is also chargeable with the expenses connected with the care of officers, seamen, and marines in civil hospitals at home and abroad.

During the fiscal year ended June 30, 1907, the receipts of the fund amounted to \$741,965.16 and the disbursements to \$418,944.94. The receipts were derived, approximately, from the following sources:

20 cents per month from 40,000 persons (act of Mar. 2, 1799) -----	\$96, 000. 00
30 cents per day for each patient, 305,551 sick days (act of Feb. 26, 1811) -----	91, 665. 30
Pensions (act of Feb. 26, 1811) -----	10, 000. 00
	197, 665. 30
From fines and forfeitures -----	544, 299. 86
Total receipts -----	741, 965. 16

The marked increase during the past five years over other years has been due to the large receipts from the deserters' rolls, provided by the act of June 7, 1900. While the aggregate receipts from any one source do not appear as a total from that source on the Auditor's books, we know quite certainly that the total of pensions passed to the credit of the funds is within \$10,000 per annum. It is thus demonstrated, as above shown, that the receipts from the tax money, ration money, and pension money was about \$200,000 and from fines and forfeitures about \$550,000.

With the completion of the naval hospital at New Fort Lyon, the enlargement of those at Canacao and Puget Sound, and the establishment of one at the Great Lakes Training Station, it is estimated that the annual expenses of all naval hospitals (19) will approximate \$600,000 per annum.

In addition to mere expenses of maintenance, there are other expenses of repair, renovation, and enlargement that must be foreseen and provided for if the hospital service of the Navy is to be kept abreast of the times and the hospitals equal to modern civil hospitals and those of the Army and Marine-Hospital Service. Most of the older hospitals were erected before the civil war and some have never undergone any general renovation. Hospitals pass out of date just as do vessels of war and within about the same period of time. With this in mind, it is proposed, with the approval of the honorable Secretary of the Navy, as mentioned in the Bureau's last report, to undertake, and without the aid of appropriation, to modernize and enlarge, as may be necessary, older hospitals. The cost of the work will be between \$800,000 and \$900,000, and will be borne by the naval hospital fund and will require about four years for its completion.

During the ensuing four or five years there will therefore be required each year \$600,000 for maintenance of all hospitals and \$225,000 for improvements, an annual total of \$825,000.

With the numerical growth of the Navy greater facilities will be required for the care of the sick and disabled in hospitals now established, and additional hospitals may be required at home and in the Philippines, Samoa, and Hawaii. The first cost of a hospital, so planned as to be capable of proper expansion, has been found to be about \$250,000. When expansion becomes necessary additional wards can be added without addition to administrative features of the building and the bed capacity increased or doubled at much less than proportional cost.

The CHAIRMAN. "Contingent, Bureau of Medicine and Surgery, \$60,000," or an increase of \$5,000 over last year.

Admiral RIXEY. That is in accord with the usual increase due to the increased number of men.

The CHAIRMAN. "Transportation of remains, \$10,000," the same as last year. Do you need all of that this year?

Admiral RIXEY. Yes; we will need it probably. There is a deficiency this year of \$2,200 on account of the loss of the launch of the U. S. S. *Minnesota* and the disaster on board the U. S. S. *Georgia* about the beginning of the current fiscal year, which resulted in the death of 9 officers and 12 enlisted men, and the expense incurred (about \$2,200) in complying with the requests made by relatives for the transfer of the remains of their dead depleted the appropriation to such an extent that it became necessary to ask for a deficiency appropriation. The needs for the coming year will undoubtedly be fully equal to those in the past.

Mr. BUTLER. This fleet is a long way from home this year.

Admiral RIXEY. Yes, and no hospital ship with it until it reaches Magdalena Bay, when we hope that the hospital ship *Relief* will be there to care for those needing hospital treatment.

The CHAIRMAN. "Repairs, Bureau of Medicine and Surgery, \$45,000," the same as last year.

Mr. ROBERTS. I would like to ask the Admiral about the hospital corps bill, the bill that I have introduced for the reorganization of the corps. It is now before the subcommittee on organization. I thought, as the Admiral is here, that we might get his views, to save his coming up again.

Admiral RIXEY. This bill (H. R. 305) is the most important bill before Congress, as far as the Naval Medical Department is concerned, and it is to be remembered that upon this corps must devolve on cruising vessels the important duties of anæsthetizers, assistants at operations, and nursing in its broadest sense, and I have prepared a careful statement for this committee, as follows:

(Following is a copy of the bill and the statement referred to:)

[H. R. 305, Sixtieth Congress, first session.]

A BILL To reorganize and increase the efficiency of the Hospital Corps of the United States Navy, and regulate its pay.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Hospital Corps of the United States Navy shall consist of chief pharmacists, pharmacists, and such ratings in the enlisted branch as may be designated according to law, governing other enlisted men.

SEC. 2. That pharmacists shall, in like manner as other warrant officers are commissioned, be commissioned chief pharmacists, and shall, on promotion,

Comparison of monthly pay.

Rate.	First enlistment.	Eighth enlistment.					Retirement.			
	Total pay.	Base pay.	Reenlistment allowance.	Bounty.	Medal and bar pay.	Total pay.	Base pay.	Fuel and quarters allowance.	Ration allowance.	Total pay.
Ordinary seamen.....	\$19.00	\$19.00	\$9.52	\$23.00	\$4.50	\$56.02	\$43.14	\$3.25	\$9.50	\$59.89
Hospital apprentice.....	20.00	20.00	9.52			29.52	22.14	6.25	9.50	37.89
Petty officer, third class.....	30.00	30.00	9.52	23.00	4.50	67.02	51.39	6.25	9.50	67.14
Hospital apprentice, first class.....	30.00	30.00	9.52			39.52	29.64	6.25	9.50	45.39
Chief petty officer.....	60.00	70.00	9.52	23.00	4.50	107.02	81.39	6.25	9.50	97.14
Hospital steward.....	60.00	60.00	9.52			69.52	52.14	6.25	9.50	67.89

The above table may serve to graphically show the injustice under which the Hospital Corps of the Navy is laboring and will account for much of the discontent manifested on all sides by the different grades of the corps. It is, in fact, the most important cause of dissatisfaction. The table shows the comparative monthly pay and the pay after seven continuous enlistments, also the pay on retirement. Many apprentice seamen are rated quartermaster, third class; gunners' mate, third class; or coxswain during the latter part of their first enlistment, so that they reenlist at \$30 plus \$5 plus \$1.36, or \$36.36 per month, on their second enlistment, whereas our trained and specialized hospital apprentices, first class, receive only \$31.36 per month on second enlistment.

As for an hospital apprentice, who is expected to nurse and care for the sick of the service, his position from a monetary standpoint will not compare with our colored mess attendants (no educational standard required) serving through different enlistments in the service. But when we come to a consideration of the condition of our hospital stewards, all well-educated, intelligent, sober men, we find their remunerations and rewards for the faithful and efficient performance of responsible, exacting, and scientific duties very small, both during service and on retirement. Furthermore, the additional pay allowed for special details is not shared by the Hospital Corps. For instance, men who are detailed as instructors, or who have completed courses of instruction in the various training schools; men detailed for certain stations on board ship and for service on certain boats; deckhands detailed for duty with the fireroom force; those detailed as signalmen, gun pointers, gun captains, and ships' tailors, all enjoy additional pay allowances. Not so with the members of the Hospital Corps, no matter what their duties, and they are frequently assigned as instructors or called upon to expose themselves in their attendance upon cases of infectious and contagious diseases. Many of them have also completed courses of instruction at the training school. In this connection it may be of interest to note that trained nurses in civil life when employed receive from \$20 to \$35 a week, the value of their services, in any instance, being based upon the nature of the patient's illness, and whether or not the disease is of a contagious or infectious character. Length of service, when combined with professional fitness, is suitably rewarded in every depart-

ment of public or private life, but not so with the Hospital Corps of the Navy. It is imperative that legislation be enacted to settle the question of pay in the Hospital Corps, at once and for all, by placing it on an equality with the rest of the service and giving it a merited share in the benefit of Executive orders which have, up to the present time, increased the pay of chief petty officers of other branches of the Navy to more than one-fourth above that of the chief petty officers (hospital stewards) of the Hospital Corps.

As for organization, actual experience during the past nine years and careful study of the present and future needs of the service have convinced the Bureau that the correction of the unsatisfactory provisions of existing law and reorganization of the Hospital Corps are required to secure and maintain a competent and efficient body of men for the care and treatment of the sick of the Navy. The needs of the corps have been fully set forth in the last four annual reports, and the Bureau has spared no effort to have proper and just provisions made. The Department has approved the recommendations of the Bureau concerning the corps and has urgently recommended favorable action thereon by Congress, and now again the Bureau earnestly recommends the prompt consideration by Congress of this matter, which is of such vital importance to the medical establishment.

An organization which will meet present needs, permit ready expansion in the event of war, and secure an efficient naval hospital corps by virtue of effacing existing unjust discrimination and offering better inducements in pay and in prospect of promotion is, in the opinion of the Bureau, provided for in the bill introduced by Representative Roberts.

The condition of the Hospital Corps on July 1, 1907, was as follows:

Rate.	Stations.	Force.	Short- age.
Hospital steward.....	257	225	32
Hospital apprentice, first class.....	318	252	66
Hospital apprentice.....	427	324	103
Total.....	1,002	801	201

This force (801) is utterly inadequate to provide the medical departments of ships in commission with full complements and at the same time supply the needs of naval hospitals, dispensaries, navy-yards, marine detachments, and recruiting offices, to say nothing of the requirements of special service, such as dental duty, torpedo-boat duty, and duty on vessels of the Fish Commission. Furthermore, under present conditions no reserve allowance can be made for the commissioning of new ships or exigencies, such as was represented recently in Cuba, where 20 hospital corps men are stationed, and it is with the greatest difficulty that a class can be organized and held at the Hospital Corps Training School for a proper course of instruction so urgent are the service demands for more men. Indeed, the Bureau is constantly receiving complaints from officers throughout the service that they have not enough assistants to perform the duties which fall upon them for execution, and this state of affairs can not be corrected with the present organization and inadequate remuneration. As already shown, it is easy to assign reasons for this state

of affairs which so complicates responsibilities and embarrasses the Medical Department in the conduct of its work on that plane of efficiency which modern standards exact. The bill contemplates nothing more than the establishment of the Hospital Corps on the same plane with the rest of the service as regards pay, allowances, and promotion. Both equity and justice and the welfare of the Navy's disabled demand it. The hope is entertained that it will be possible to secure its passage during the first session of the Sixtieth Congress. The Bureau went to the limit of propriety, with the Department's sanction, in trying to obtain favorable action in the matter by the Fifty-ninth Congress, and if the matter goes over again it means another year of difficulty in handling our sick and injured. Inefficient nursing means increased suffering and increased pension claims, and no matter how skilled your physician or your surgeon may be, the want of trained nursing is sure to be felt.

Admiral RIXEY. I would like to say that this bill, or something along that line, is absolutely necessary if we are to have proper nursing on battle ships, to have proper assistance surgically and medically in caring for our sick. We are handicapped to-day, not only in regard to the numbers but also in regard to the efficiency. These men are enlisted while young, and trained in our school for the Hospital Corps. They are well trained in four years, but when their enlistment expires they will not reenlist, for the reasons shown above.

Mr. ROBERTS. It takes two or three years to train a man properly.

Admiral RIXEY. Four years; in that time he is well trained. We can, however, give but four months' instruction to these men in the Hospital Corps Training School on account of the small number in the corps and the great need for them in active service, and consequently they can not be considered trained nurses in the proper sense of the word until about the close of their first enlistment.

Mr. ROBERTS. What difficulty have you experienced in getting them trained?

Admiral RIXEY. The service needs call for a complement of about 1,000 hospital corps men of whom there should be 257 hospital stewards, 318 hospital apprentices first class, and 425 hospital apprentices. On July 1, 1907, the corps was short 201, of whom 32 were hospital stewards, 66 hospital apprentices first class, and 103 hospital apprentices, leaving a force of 801. This force of 801 hospital corps men, mostly untrained and new to the service, must do the work of 1,000, and but few of the present force will reenlist. Therefore, it is impossible to hold men at the Hospital Corps Training School until they can be properly trained, as the needs of the various ships and stations require the services of every available man. When men are properly trained, it is impossible under existing conditions to hold them, and the inducements are not at present sufficient to attract trained men from the outside, even if they could be obtained.

Mr. ROBERTS. Why not?

Admiral RIXEY. For the simple reason that they can do better outside, and the men in other branches of the service alongside of them, in the same position exactly in regard to rate, get more money, and better opportunities of promotion than they do.

Mr. ROBERTS. And it discourages them?

Admiral RIXEY. Yes.

Mr. ROBERTS. Admiral, will you please tell the committee what you told me about the character of service in the Hospital Corps on the battle ships. Instead of having thoroughly trained men on our battle ships, we have really apprentices in the course of training, because of trouble in keeping the men.

Admiral RIXEY. Yes; the surgeons on all cruising vessels have to rely upon the hospital corps men to give anæsthetics, to assist in operations, and to care for the very sick. Those men should be trained to do it no matter how expert the surgeons may be. If the patient dies under an anæsthetic, it reflects on him, and the same way in regard to the first assistant. The surgeon may understand everything in regard to the operation, but unless he has proper assistants who will carry out his instructions, great difficulties will arise, and the patient can not be properly cared for nor treated. Whereas with proper nursing and proper attendance, which this bill will give, they will be as safe and well cared for as anywhere.

Mr. ROBERTS. What proportion of your hospital attendants are what you deem trained—that is, thoroughly trained men; and what proportion are what you would class as apprentices?

Admiral RIXEY. I would say that there are very few of them perfectly trained.

Mr. ROBERTS. Can you not give us a percentage?

Admiral RIXEY. I do not think there is a dozen hospital stewards even who have more than ten years' experience in the service. Nearly all of our hospital stewards ought to be men who spend their whole lives in the service. Instead of that they will not stay; they leave us, and they are the best trained men we have.

The CHAIRMAN. Admiral, what is the rank, pay, and allowances for the boatswain?

Admiral RIXEY. A boatswain is a warrant officer receiving \$1,200 at sea or \$900 ashore; this pay gradually increases until he has been twelve years in the service, when he receives \$1,800 at sea and \$1,600 on shore, with allowances for quarters, and may be promoted to chief boatswain with pay and allowances of the lowest commissioned grade.

The CHAIRMAN. What do the pharmacists receive?

Admiral RIXEY. They receive the same pay and allowances for quarters as boatswains, but pharmacists do not have the opportunity for promotion to the grade of chief such as is now allowed to boatswains who may be promoted to the rank of chief boatswain with the accompanying increase in pay and allowances.

The CHAIRMAN. How are the pharmacists appointed?

Admiral RIXEY. They are appointed from the hospital stewards in the service, according to their length of service after a physical and professional examination by a board appointed by the Secretary of the Navy, but their warrant is signed by the Secretary of the Navy, whereas all other warrant officers are appointed by the President. We ask to have the same rules apply to the Hospital Corps as to others.

The CHAIRMAN. The enlisted force of the Hospital Corps comes from the enlisted force of the regular Navy.

Admiral RIXEY. Yes, sir.

The CHAIRMAN. Section 3 of that bill reads: "That the pay of the enlisted men of the Hospital Corps of the United States Navy shall

be fixed in accordance with the provisions of section 1569 of the Revised Statutes." What is the substance of that section?

Admiral RIXEY. Section 1569 says:

The pay to be allowed to petty officers, excepting mates, and the pay and bounty upon enlistment of seamen, ordinary seamen, firemen, and coal heavers, in the naval service, shall be fixed by the President: *Provided*, That the whole sum to be given for the whole pay aforesaid, and for the pay of officers, and for the said bounties upon enlistments shall not exceed, for any one year, the amount which may, in such year, be appropriated for such purposes.

Mr. ROBERTS. This bill proposes to change the fixed statutory pay of this Corps, and put it in the discretion of the President, as the enlisted men are paid, thus leaving it to the President to fix their compensation. This Corps is the only corps in the Navy that has its pay absolutely fixed by law. The others are all fixed by Executive order.

Admiral RIXEY. This is the only one.

Mr. ROBERTS. If this Corps had that elasticity, the trouble in your Corps could be very easily remedied by Executive order.

Admiral RIXEY. Yes, sir.

My statement concerning the Hospital Corps already given in the hearing explains the matter fully.

In connection with the hospital corps bill (H. R. 305), there are two other bills which have received the approval of the Secretary of the Navy and which will be introduced in the House shortly. One is for a corps of dental surgeons for the Navy and the other is for a corps of women nurses for the Navy. A short summary of the reasons for these two bills is as follows:

STATEMENT CONCERNING DENTISTS FOR THE NAVY.

The amount of dental disease that exists in the Navy and the consequent treatment required by the enlisted personnel of the service is considerable. Reports from only two of the stations where dental treatment is being given under emergency makeshift circumstances embraced some 4,631 cases of almost every character of dental work, as stated in my annual report for 1907. This statement gives a fair idea of the Navy's need in regard to dental services.

Dental surgeons are needed in the Navy quite as much as, if not more than, in the Army, which service enjoys free treatment by dentists employed in accordance with law, and it seems an unjust discrimination against the enlisted men of the Navy not to provide for similar dental work, especially in view of the universally recognized economic importance of sound teeth in military service.

A bill was drafted and submitted September 20, 1907, which embodies the views of the Bureau of Medicine and Surgery on this subject, and it is earnestly recommended that Congress be asked in its present session to take favorable action on it. If its provisions become law, the requirements of the Navy in this respect will be satisfied.

STATEMENT REGARDING WOMEN NURSES.

The desirability of the addition to our facilities for the efficient care of the sick and injured of the service, which is represented by women nurses, has been made the subject of careful consideration from all points of view by the Bureau of Medicine and Surgery.

Congress has recognized the value of and made provision for women nurses in the Army. The Navy needs and merits the same provision for its sick and injured.

It is in the event of war that the usefulness of women nurses would become most apparent. Then it would be necessary to have a larger number of male nurses available for duty at sea, and under the present conditions it would be possible to meet this need only by the enactment of legislative authority for the employment of women nurses. Aside from the fact that women nurses are actually needed now, it will not suffice to wait until the emergency of war arises and at the eleventh hour make appeal for the necessary authority for their employment. Provision must be made now in view of the present needs and against future possibilities.

The number of such nurses would be determined by the requirements of the service from time to time. Under conditions of peace and in ordinary times the number would be comparatively small, employed chiefly on the more serious cases, and in times of war expansion to meet the extraordinary needs would be practicable. Of course, women nurses could have no place at sea, except on hospital ships, but in the naval hospitals, where nine-tenths of the serious cases are treated, their peculiar fitness for work in wards and in the operating room makes their service most desirable.

Such a corps as the proposed bill calls for, simple as it is, requires that women nurses be admitted to the service in small numbers under the present favorable peace conditions. The need is for an organized nucleus of women nurses, trained and accustomed to military conditions, which would lend itself to ready expansion in time of war and around which as a controlling spirit an emergency expansion could be affected without loss of morale.

Adjourned at 2.40 p. m.

[No. 8.]

**STATEMENT OF REAR-ADMIRAL CHARLES W. RAE, CHIEF
BUREAU OF STEAM ENGINEERING.**

The CHAIRMAN. The first item is, "Bureau of Steam Engineering. Steam machinery: For completion, repairing, and preservation of machinery and boilers of naval vessels," etc., \$4,065,000. You are asking for an increase of \$565,000. What is the necessity for that?

Admiral RAE. Simply the increase of the Navy, more ships to keep in order. I have a list here of some of the money that will be expended. Sixty-five thousand of the increase is for the specific purpose of putting in good condition the machinery of ships loaned to States for the naval militia, under a recent decision of the Department.

The CHAIRMAN. Have you made an estimate just where the money will be expended?

Admiral RAE. Yes, sir.

The CHAIRMAN. Please tell us where it is going to be expended.

Admiral RAE. This sheet has been made up in conjunction with the Bureau of Construction and Repair. It is a list of the ships that will be repaired in all probability during the year 1909.

Mackenzie.....	e 56,334.09	1,500.00	4,000.00	May 1, 1899	e May 1, 1899	
Manley.....	b 25,000.00	1,500.00	1,500.00			
Morris.....	c 94,913.87	3,000.00	4,000.00	May 11, 1898	e May 11, 1898	
Porter.....	c 169,321.73	5,000.00	14,000.00	Feb. 20, 1897	e Feb. 20, 1897	
Rodgers.....	c 110,730.63	4,000.00	6,000.00	Apr. 1, 1898	e Apr. 1, 1898	
Rowan.....	c 180,816.40	5,000.00	10,000.00	Apr. 1, 1898	e Apr. 1, 1899	
Rumars.....	b 72,997.50	3,000.00	6,000.00	Mar. 28, 1898	e Mar. 28, 1898	
Talbot.....	c 41,883.08	3,000.00	8,000.00	Apr. 1, 1898	e Apr. 1, 1898	
Tringey.....	c 108,707.68	5,000.00	3,000.00	Jan. 7, 1904	e Jan. 7, 1904	
Warkola.....	c 33,648.01	4,000.00	13,000.00	June 7, 1898	e June 7, 1898	
Hamibal.....	b 145,048.00	12,000.00	3,000.00	Apr. 27, 1898	e Apr. 27, 1898	
Justin.....	b 145,000.00	12,000.00				28,645.00
Total.....	63,588,738.51	2,516,500.00	2,115,300.00			2,874,317.99
						1,111,656.08

a First overhauling. b Purchase price. c Necessity for present overhauling due principally to worn-out boilers.

The CHAIRMAN. Please read the names of the battle ships.

Admiral RAE. *Massachusetts, Oregon, Iowa, Alabama, Illinois, Kearsarge, and Kentucky.*

Mr. HOBSON. Does this estimate contemplate putting in new machinery?

Admiral RAE. New boilers; not new machinery.

Mr. HOBSON. In each one?

Admiral RAE. New boilers will be placed in the *Alabama, Illinois, Kearsarge, and Kentucky.*

Mr. HOBSON. Is it a different type or the old boiler?

Admiral RAE. It will be, in all probability, a different type, because those ships have Scotch boilers in them at present, and probably water-tube boilers will be substituted for them.

Mr. HOBSON. Is that because you desire the new type or because the old type ran down?

Admiral RAE. The Scotch boilers are worn out; they are too old.

Mr. LOUD. How long did they average in service?

Admiral RAE. It varies. These boilers are between 8 and 9 years old.

The CHAIRMAN. With the fleet on the Pacific coast, do you need as much money for repairing and renewing as you did last year?

Admiral RAE. There will be just as many repairs to the ships, in all probability.

The CHAIRMAN. None on the eastern coast?

Admiral RAE. No; of course not. Some of these ships are on this side. For instance, the *Iowa* is here, the *Massachusetts* is here, and then the other ships which require new boilers will, I suppose, come back. Of course I know nothing about that.

Mr. PADGETT. You mentioned the *Massachusetts*. The *Massachusetts* is now in the navy-yard at Brooklyn undergoing repairs?

Admiral RAE. Yes, sir.

Mr. PADGETT. Those repairs are being paid out of this year's appropriation?

Admiral RAE. Yes, sir.

Mr. PADGETT. How much of the repairs to the *Massachusetts* will come out of the 1909 appropriation?

Admiral RAE. We have put down only \$25,000, because it is supposed that it will run over into that year only a small amount.

The CHAIRMAN. What ships have you put down in your estimate of repairs the coming year that are now in the fleet going around the Horn?

Admiral RAE. There are several of them; four of the ships I mentioned.

The CHAIRMAN. What are the amounts?

Admiral RAE. One hundred and seventy-five thousand dollars for the ships that will require new boilers.

The CHAIRMAN. For the ships now in the fleet?

Admiral RAE. Yes, sir.

The CHAIRMAN. For all the ships?

Admiral RAE. No, sir; \$175,000 apiece.

The CHAIRMAN. How many of them are there?

Admiral RAE. Four of them.

The CHAIRMAN. At \$175,000 each?

Admiral RAE. Yes, sir.

Mr. LOUD. What is the average life of a first-class Scotch boiler such as you use in a battle ship?

Admiral RAE. Generally about six to eight years. They vary a little. Some last longer, and sometimes they give away very unexpectedly owing to unexplained causes.

Mr. LOUD. Do they wear out more rapidly in the Navy than in the merchant service?

Admiral RAE. I think not.

Mr. LOUD. What is the average life of a boiler in the merchant service?

Admiral RAE. I can not answer that question without looking up the subject.

Mr. DAWSON. Will you make the *Iowa* a fighting ship with these new boilers?

Admiral RAE. I think the *Iowa* is a very good ship.

Mr. ROBERTS. Is there any part of this increase due to the fact that the fleet is making a cruise around to the Pacific?

Admiral RAE. No, sir.

Mr. ROBERTS. If the fleet remained on this coast you would still ask for the same increase?

Admiral RAE. Yes, sir.

The CHAIRMAN. The next item is "For purchase, handling, and preservation of all material and stores," etc., \$2,500,000. There is an increase of \$500,000.

Admiral RAE. That is for exactly the same reason—that the Navy is larger and that we will have more ships in commission. There is a statement in the report of the Chief Constructor about the number of ships that have been placed in commission within the year.

The CHAIRMAN. Have you any figures upon which you base your estimate of \$2,500,000?

Admiral RAE. They are based upon the estimated cost of the material required to make the repairs on ships, as shown in the table hereto previously appended.

The CHAIRMAN. Can you furnish those figures in the hearing?

Admiral RAE. Yes, sir. They are furnished in the table referred to.

Mr. BUTLER. Without in any way embarrassing you, or without embarrassing you too much, can not you reduce this figure a little?

Admiral RAE. I do not think so. We had to struggle along very carefully during the last year, and the increase in the amount, I think, will be absolutely necessary, considering the increase in the size of the Navy.

Mr. BUTLER. How much did we increase this item last year?

Admiral RAE. I will have to look it up.

Mr. BUTLER. And please furnish the same data in regard to the previous year. I would like to know just how this item has increased.

(The following are the amounts asked for by Mr. Butler:)

Amount of estimate.

For the fiscal year ending June 30—

1906	-----	\$1, 400, 000
1907	-----	2, 000, 000
1908	-----	2, 000, 000
1909	-----	2, 500, 000

Mr. PADGETT. Is there any deficiency in this item or the preceding item?

Admiral RAE. No, sir; we have no deficiency in the bureau at all.

Mr. PADGETT. Have you a surplus?

Admiral RAE. We can not tell, on account of the foreign accotunts. That is all estimated, and in order to avoid a deficiency we usually have a very little left over, but it is just for that purpose—to avoid a deficiency.

Mr. MUDD. Where will this work of repairing be done to the Pacific fleet?

Admiral RAE. A great deal of it will be done at the Mare Island Navy-Yard and at Puget Sound and a great deal on board the ships themselves.

Mr. MUDD. Do you think that you will be able to get the ships up to Mare Island?

Admiral RAE. I do not know whether they will take the battle ships up there or not, but there are some officers who seem to think they can go there.

Mr. MUDD. Can you put in new boilers without going to the navy-yard?

Admiral RAE. No, sir.

Mr. ROBERTS. If you break the propeller, you have to go to the yard?

Admiral RAE. Yes, sir.

Mr. MUDD. How many of those ships have to have new boilers?

Admiral RAE. Four.

Mr. MUDD. Is Puget Sound in shape to do all that work?

Admiral RAE. I think those ships will come back.

Mr. GREGG. You stated that this increase is due to the increase in the Navy. I would like to know just for my own information how much the addition of each battle ship adds to the annual expense. I do not mean in your department, but for all the departments. In other words, how much more does it cost the Government for the addition of one battle ship?

Admiral RAE. I should have to look that up under the different bureaus. The cost of maintenance of a vessel of each type (during the fiscal year 1907) is shown in Pulsifer's Navy Year Book, 1907, page 585.

The CHAIRMAN. The next item is, "For incidental expenses, \$6,000." That is the same as the appropriation last year?

Admiral RAE. Yes, sir.

Mr. ROBERTS. There is new language, "For incidental expenses for Navy vessels, yards, and the Bureau." You have a contingent fund for your Bureau as well?

Admiral RAE. No, sir: we have not. The words "and the Bureau" were inadvertently included. They should be omitted.

Mr. ROBERTS. Have you not a contingent appropriation for your Bureau?

Admiral RAE. No, sir. There is one in the Department at large, not for the Bureau alone.

The CHAIRMAN. The next item is, "Machinery plant, navy-yard, Pensacola, Fla.: For purchase of some modern tools for use in repair of naval vessels, to replace others worn out, \$30,000." Last year you had \$10,000. Can not we reduce this estimate?

Admiral RAE. They have had a fire down there which ruined a lot of tools. They are very badly off, and I think it will require that amount to put the engineer department of the yard in condition to make the ordinary repairs when the ships go in there.

The CHAIRMAN. The next item is, "Machinery plant, navy-yard, Portsmouth, N. H.: To outfit new shops authorized and completed or nearly completed, especially the new boiler and pattern shops, etc., \$75,000?"

Admiral RAE. Seventy-five thousand dollars is a very small amount compared to the buildings to be outfitted. The outfitting of a new shop costs anywhere from \$200,000 up to complete it.

The CHAIRMAN. Two hundred thousand dollars to put in the new tools?

Admiral RAE. Yes, sir; and everything connected therewith.

The CHAIRMAN. How many shops have you there?

Admiral RAE. There are new boiler and pattern shops. The pattern shop is incomplete. There has been a special letter written asking an appropriation for the completion of the pattern shop.

The CHAIRMAN. There is a pattern shop asked for under the Bureau of Yards and Docks?

Admiral RAE. It was reduced in size. There were three of the bays of the pattern shop which were not completed owing to the lack of appropriation. They have asked to have those three bays completed.

Mr. LOUD. Is there any probability of doing any work in the boiler shop if you should get it?

Admiral RAE. Yes, sir.

Mr. LOUD. There is no probability of any great amount of work being sent to that yard?

Admiral RAE. Yes, sir; there was expended last year in the department of steam engineering for labor and material a total of \$345,332.06. They have a very fine dock there now, and we want to be in condition to do the work.

Mr. LOUD. To be in condition to do the work, is there any probability of doing any work there?

Admiral RAE. Yes, sir. As above stated, last year it amounted to \$345,332.06, showing that considerable work is done there.

Mr. LOUD. Are not the yards at Norfolk, New York, and Boston able to handle the current work?

Admiral RAE. I suppose they are, but of course the Navy must be in condition to take on work suddenly. There may be an occasion where they could not handle all the work. Just at present they are able to handle it.

Mr. LOUD. That yard is far away from the center where labor is to be obtained reasonably?

Admiral RAE. No, sir; I think we could get labor.

Mr. LOUD. They make the complaint there that labor is not easily obtained?

Admiral RAE. They complain of that almost everywhere.

Mr. HOBSON. What are the docking facilities at Pensacola?

Admiral RAE. They only have a floating dock there, an old one. I have not seen it, and do not know the exact condition it is in.

Mr. ROBERTS. Was not the dock wrecked by the big tidal wave they had?

Admiral RAE, Yes, sir. Whether they have put it in good condition I do not know.

Mr. HOBSON. In case of repairs being made to ships in southern waters in connection with the Panama Canal and West Indies and the desire to have the repairs made in southern waters, notably your department, for instance, in replacing boilers, what station would you think would be the best equipped?

Admiral RAE. Pensacola in the southern waters would be the only place. We have only one building at New Orleans that is not out-fitted yet with tools. Key West is but a small station.

Mr. HOBSON. And Charleston?

Admiral RAE. Charleston is not in condition to do any work. In the first place, you can not get to the dock.

Mr. OLCOTT. Is there plenty of water at Pensacola?

Admiral RAE. Yes, sir. The ships always go in there when they are at winter target practice.

Mr. ROBERTS. Is it at Charleston where there is a tennis court between the dock and the water?

Admiral RAE. No; they had none when I was there several months ago, but there was no entrance to the dock. It had not been completed.

Mr. MUDD. Is there a bar?

Admiral RAE. No; they had not completed the dock entrance. They had completed the dock inside, but the entrance to the dock had not been completed when I was there.

Mr. MUDD. What is the situation at Portsmouth as to getting to the dock?

Admiral RAE. It is all right there.

Mr. PADGETT. There was an appropriation made last year for the entrance to the dock at Charleston, was there not?

Admiral RAE. That comes under the Bureau of Yards and Docks. I think there was, but not being in my bureau I do not know about that. I know that it has not been completed.

The CHAIRMAN. Can not we reduce the estimates here for machinery plant at Norfolk, \$40,000; New York, \$40,000; League Island, \$25,000, and Cavite, \$15,000?

Admiral RAE. No, sir; I do not think they could be reduced because those shops, a good many of them, are pretty old and machine tools cost a great deal of money. A good drill press costs about \$13,000. It depends on the size. To keep tools from gradually wearing out and in good shape requires money.

Mr. DAWSON. How many blacksmith shops are there at the Norfolk yard?

Admiral RAE. There is one under Construction and Repair, and one under Steam Engineering. Whether there are any more, I do not know.

Mr. LOUD. Could not they be consolidated with economy?

Admiral RAE. I think they might, yes, sir. I do not think it would be good policy to consolidate all the shops of a similar kind.

The CHAIRMAN. The next item is "Machinery plant, naval station, Olongapo, Philippine Islands," \$25,000?

Admiral RAE. We are trying to put that station in good condition. We are supposed to do work there shortly.

The CHAIRMAN. The next item is "Machinery plant, navy-yard, Boston, Mass.," \$25,000. Do you need that amount?

Admiral RAE. Yes, sir; we need that.

The CHAIRMAN. The next item is "Machinery plant, navy-yard, Mare Island, Cal.," \$75,000?

Admiral RAE. We are building a collier there and that amount is necessary.

Mr. BUTLER. How much will the collier cost?

Admiral RAE. Originally \$1,250,000. In the bill approved June 29, 1906, the cost was increased to \$1,550,000.

Mr. BUTLER. In view of the investigation the Department has requested made to ascertain whether or not there is sufficient water to get to Mare Island, do you deem that appropriation wise?

Admiral RAE. A collier can certainly be built there; there is plenty of water for that.

Mr. BUTLER. Suppose we can not get all the ships there? Do you think it would be a good business programme to maintain one yard to build large ships and one yard for small ships?

Admiral RAE. I think we require all the yards on the Pacific coast. We have only two there.

Mr. BUTLER. There is no doubt of that; we also require water to get up to the yard.

Admiral RAE. That question has been before the public I do not know how many years.

Mr. BUTLER. Do you not think it would be well for us to withhold permanent appropriations for Mare Island until that matter can be determined?

Admiral RAE. I think if we are to build a ship out there we want some machine tools.

Mr. BUTLER. Can not you build the ship without the expenditure of \$75,000 for machine tools?

Admiral RAE. As I said before, machine tools cost money and \$75,000 will not buy very many.

Mr. BUTLER. As a business proposition, in view of the fact that the chief of the Navy has asked for a committee to investigate whether the depth of water can be maintained at this yard, do you not think that it would be well for us to withhold such an appropriation as this?

Admiral RAE. I do not think that is very much. There is always something coming up that causes this appropriation to be postponed and we do not get any money.

Mr. BUTLER. Do you not think that \$75,000 is an awful amount of money?

Admiral RAE. It would be for me, but not for the Navy.

Mr. LOUD. If you did not build the collier out there, would you still ask for the \$75,000?

Admiral RAE. No; I think not for the whole of it, but for some of it.

Mr. LOUD. How much of it?

Admiral RAE. I can not tell exactly without knowing what tools I might strike off on account of that, but \$75,000 is not very much for machine tools.

Mr. LOUD. If you were not building the collier, would you ask for more than \$25,000?

Admiral RAE. I do not know without looking into the subject, as there are certain tools that they would cut off on account of the collier.

Mr. MUDD. How far is this appropriation of \$75,000 necessary for the completion of the construction of the collier there?

Admiral RAE. I can not tell you, except to make a rough stab at it.

Mr. LOUD. That is all we want.

Admiral RAE. In building machinery you have to have large machine tools, and large machine tools cost a great deal of money. A drill press purchased a short time ago cost \$13,000. In building machinery for this collier we have to have lathes sufficiently large to take a crank shaft. A lathe of that size costs a great deal of money. Just at this moment I can not tell whether we have such a lathe at Mare Island or not.

Mr. PADGETT. The collier is authorized and is being built there now?

Admiral RAE. Yes, sir; it is under construction.

Mr. LOUD. I understood that owing to the disturbance in the labor market they had not laid the keel of that boat?

Admiral RAE. The ship is way behind the one in New York.

Mr. LOUD. It is actually under progress now?

Admiral RAE. Yes, sir.

Mr. LOUD. I understood the matter was laying dormant.

Admiral RAE. No, sir; we are doing work in the shops, although the absolute completion of the ship is away behind. I think the percentage the last time I saw it was 2 per cent completed.

The CHAIRMAN. You need these tools at the other shops?

Admiral RAE. At those places they are always calling for light work. Vessels are running in there and want this or that done.

Mr. PADGETT. I understand that collier is estimated to cost \$1,550,000, and I also understand that the carrying capacity is about 6,000 tons of coal. I understand also that we can purchase in the market a larger collier carrying a larger number of tons of coal for about \$500,000. In other words, we could get three in the open market for what this one is to cost us.

Admiral RAE. I dare say you can get colliers very much cheaper, but they will not be as good and they will not last as long, and another reason is the very important fact of their not having the speed to keep along with the fleet. These are to be much faster vessels than those purchased in the open market. Neither are the purchased colliers fitted with coal-handling machinery.

The CHAIRMAN. Is it a fact that this ship will be a collier and also a repair ship or a hospital ship, a number of things combined?

Admiral RAE. It is particularly a collier; it is not a repair ship. I do not know whether or not it is going to be an ammunition ship also.

The CHAIRMAN. I understood the collier included a sort of workshop for each bureau?

Admiral RAE. No, sir; that is not the case.

Mr. PADGETT. What is the difference in the speed capacity between that ship which can be bought in the open market and this one that is being built?

Mr. LOUD. Three knots.

Admiral RAE. I think it is more than that. The speed of the colliers that can be bought, I think, is not over 10 knots.

Mr. LOUD. We were told they were 13 knots?

Admiral RAE. The speed in light condition was stated to be 11 knots.

The CHAIRMAN. What will be the speed of this collier?

Admiral RAE. The speed of the colliers building by the Government, the fleet colliers, will be 16 knots.

Mr. LOUD. The one you are building at Mare Island?

Admiral RAE. Yes, sir.

Mr. LOUD. It will be 16 knots?

Admiral RAE. That is right.

Mr. LOUD. It cost us more than double to get the additional speed?

Admiral RAE. The work will be very much better because it will all be under Government inspection. Another thing, we have the eight-hour day, and the other ship was not built under the eight-hour law.

The CHAIRMAN. Do you feel that you need the amounts estimated for machinery plants at Puget Sound, New Orleans, and Guantanamo?

Admiral RAE. Yes, sir. They are very small, only \$10,000 each.

The CHAIRMAN. The next item is: "Engineering experiment station, United States Naval Academy, Annapolis, Md.—Salaries: One civilian assistant to the director, \$3,000." Do you need him?

Admiral RAE. I do, very much. I would like to state that the first building at the experiment station has been completed. You know there was long delay to get title to the ground. We expect to move into the first building on the 1st of March of this year. We have already a turbine set up in one of the old buildings of the Naval Academy, and I would like to have the committee go down and look at it and see how we are getting started in making experiments.

The CHAIRMAN. You have a good many people here?

Admiral RAE. Yes, sir; but this is to be an engineering experiment station and we expect to do some very valuable work there.

The CHAIRMAN. You have not got started yet?

Admiral RAE. We will move into the building on the 1st of March, this year, and of course this appropriation becomes available after the 1st of July.

The CHAIRMAN. This contingent item is for that purpose?

Admiral RAE. Yes, sir. I am very anxious to get that.

The CHAIRMAN. You have a contingent fund now?

Admiral RAE. Yes, sir; but this is for the naval station down there. I have a private letter which shows fully what we want to buy there. The reason we want the contingent is the Department has decided that we can not buy these books and periodicals and the things that we want out of any of the funds appropriated for the experiment station. Here is a private letter:

When I first came here I studied the standard methods of protecting the shores from erosion of the sea and found that it would cost \$2,500 to protect the experiment station coast. A few days ago I read in the Engineering News—

One of the papers he wants to buy under this contingent—

of a new method which has been discovered by our army engineers, and found a method by which the same protection can be provided for about \$200, saving \$2,300, enough to buy that paper for four hundred and sixty years.

The CHAIRMAN. Could he not buy the paper because he did not have the contingent fund?

Admiral RAE. He could buy it out of his pocket. There are several other things he wants.

The CHAIRMAN. The next item is, "Experimental and research work." Is this amount necessary?

Admiral RAE. Yes, sir. As I say, now we have the building, we are going to move into it on the 1st of March and we expect to make some important experiments. We want to get at the corrosion that occurs in boiler tubes and condenser tubes.

The CHAIRMAN. The next item is, "One house for quarters for engineering director, \$20,000?"

Admiral RAE. Those are very necessary. It is across the Severn River and there are no houses to rent. It is a very sparsely settled country.

The CHAIRMAN. How far is it from Annapolis?

Admiral RAE. About 2 miles, by road.

Mr. BUTLER. How much money are you intending to pay the engineering director?

Admiral RAE. Three thousand dollars.

Mr. BUTLER. Do you propose to give him a \$20,000 house to live in?

Admiral RAE. Yes, sir.

The CHAIRMAN. These two houses for the two assistants at \$15,000 each will make a total of \$50,000 for houses?

Admiral RAE. Yes, sir.

The CHAIRMAN. We next come to the civil establishment, where I see you have put in some clerks.

Admiral RAE. That was authorized by the Department.

The CHAIRMAN. These are per diem clerks?

Admiral RAE. No, sir.

The CHAIRMAN. And you put them in where they will go on the general roll?

Admiral RAE. Yes, sir; they are authorized by the Department.

Mr. BUTLER. They are new men?

Admiral RAE. All those printed in italics are new men. This is a new man at Portsmouth. We find it absolutely necessary to have a man for the amount of work in the office.

Mr. BUTLER. The amount of construction; there is no repairing done at Portsmouth?

Admiral RAE. Yes, sir; they are working there all the time.

The CHAIRMAN. I understand they are being employed now under your general appropriation?

Admiral RAE. Some of them may be employed under "Steam engineering."

The CHAIRMAN. By putting them in here we put them on the general roll?

Admiral RAE. Yes, sir.

The CHAIRMAN. At New York the two clerks are new?

Admiral RAE. Yes, sir; but they are in the same condition.

Mr. MUDD. That is not the case with reference to the new men at Annapolis?

Admiral RAE. No, sir; those are new men entirely; they are not employed.

Mr. PADGETT. Are you sure that the employees at the other places are simply being transferred from one roll to another or may they be new men?

Admiral RAE. You know there are clerks employed under the general appropriation, per diem men. We also have regular clerks. If the time comes when we need more men we get authority to employ them from the "Steam engineering" appropriation.

Mr. PADGETT. In other words, you are putting these men on the civil establishment roll, and you are not reducing the per diem men?

Admiral RAE. We will reduce the per diem men unless it becomes absolutely necessary to retain them.

Mr. PADGETT. You are not asking for a reduction; you are asking for the same amount or more in the estimates submitted?

Admiral RAE. That estimate is for "machinery plant," and includes a great many things.

Mr. PADGETT. But in making up this estimate, did you reduce the per diem for employees?

Admiral RAE. I do not suppose that just one clerk was taken into consideration at all in dealing with such sums.

Mr. PADGETT. Instead of one clerk, there is a number in the different estimates?

Admiral RAE. Yes, sir.

Mr. PADGETT. So that it amounts to an increase if you use the same amount per diem?

Admiral RAE. Yes, sir.

The CHAIRMAN. The clerks at Cavite are employed there?

Admiral RAE. Yes, sir.

The CHAIRMAN. The clerks at Olongapo are already employed?

Admiral RAE. Yes, sir.

Mr. BUTLER. I see on page 176 of the bill that Congress is asked to increase the salary of the clerk at League Island from \$1,200 to \$1,400. Would you please tell the committee the reason why you ask for that increase in salary?

Admiral RAE. We ask for it because living is higher. We ask for it for all the clerks at all the yards in all the departments, not only this department, but for every other department. It was the policy of the Navy Department to permit us to ask for an increase in the salaries of the chief clerks at all the navy-yards.

Mr. BUTLER. This is the chief clerk?

Admiral RAE. Yes, sir; of the Department of Steam Engineering. Referring to the engineer experiment station at Annapolis, Md., it is earnestly requested that the committee consider favorably the amounts asked for it. Owing to the delay in securing a clear title to the property, many years have elapsed since the Congress authorized this establishment, from which great results are anticipated. The first building will be occupied about the 1st of March next, before the appropriations here asked for will become available, and every effort to begin the tests and experiments so long desired, and to continue them to completion, will be made. To make them, and to make them of value, requires the personnel herein asked for, and the quartering of that personnel at the station, on the grounds. It is therefore urged that should the committee deem it absolutely necessary to reduce these estimates that the reduction be made in estimates other than those for the experiment station.

[No. 9.]

THE COMMITTEE ON NAVAL AFFAIRS

Thursday, January 23, 1908.

The committee this day met, Hon. George E. Foss in the chair.

STATEMENT OF GEN. GEORGE F. ELLIOTT, COMMANDANT, ACCOMPANIED BY COL. FRANK L. DENNY, QUARTERMASTER, AND LIEUT. COL. GEORGE RICHARDS, ASSISTANT PAYMASTER.

The CHAIRMAN. The first item is on page 138 of the bill, "Public works, Marine Corps. Barracks and quarters, Marine Corps: Toward the completion of officers' quarters, marine barracks, navy-yard, League Island, Pa., \$70,000." Last year the appropriation was "For construction of officers' quarters, to cost not to exceed \$30,000." Will you please explain that item?

Colonel DENNY. The idea is to provide some additional officers' quarters. You authorized last year two sets of quarters, and we find that two sets are not sufficient in which to quarter the number of officers attached to the station, and we recommend that you give us four more.

The CHAIRMAN. Making six in all?

Colonel DENNY. Yes, sir.

Mr. LOUDENSLAGER. How many officers do the two quarters accommodate?

Colonel DENNY. It depends on whether it is a married officer or a bachelor; if bachelors, three; if a married officer, only one.

Mr. LOUDENSLAGER. That is a \$15,000 house for one officer?

Colonel DENNY. Yes, sir.

The CHAIRMAN. Last year we gave you \$30,000, and now you are asking for \$70,000, \$100,000 in all, about \$16,000 apiece?

Colonel DENNY. One point there is that in building at Philadelphia we have to pile; the whole navy-yard is practically made ground, and piles have to be driven. They cost from \$3,000 to \$5,000 for each house. That makes the cost of houses there, as at Norfolk on the new tract, quite expensive, but it would be unsafe to build a house except on piles.

The CHAIRMAN. The next item is, "Toward the completion of the quartermaster's depot, Philadelphia, Pa., the purchase of ground adjoining such building, and the construction thereon of an armory, \$70,000."

Colonel DENNY. This committee has been particularly good to us at Philadelphia in erecting a depot which, when completed, will be sufficiently large to keep all the supplies of the Marine Corps. All our supplies are kept there and at the depot in San Francisco; that means clothing, arms, accouterments, and military stores, supplies of all kinds.

The CHAIRMAN. Last year we gave you \$200,000?

Colonel DENNY. Yes, sir; for the purchase of ground and the erection thereon of an addition to the depot.

Mr. BUTLER. Will this appropriation complete the building?

Colonel DENNY. Yes. That addition is now being built and will be completed by the first of August or September next. The present proposition is to add to that building another building, which we would call an armory and in which we would keep all uniforms, arms, ammunition, equipment and other military stores and supplies. We propose also to make our own uniforms on the premises, also tents, accouterments, etc. Labor and material will thus be under our control and be subject to constant inspection. We are sure that the result will be greater efficiency without increase in expenses. With this building and the operatives whom we could employ we can make our own things as we need them and at less cost, etc., than we are paying now. The effect would be that we would have an armory in which nearly everything could be made and be kept that the marine uses, from his shoes up, including his uniform, accouterments, and camp and garrison equipage. At all times we could then be ready to fit out a battalion—yes, even a regiment or a brigade—in twelve hours' notice for any duty ashore or afloat. The location of the depot is only about 3 miles from the League Island Navy-Yard.

Mr. BUTLER. Will this building be sufficient for the whole Atlantic coast?

Colonel DENNY. Entirely, and with the branch depot at San Francisco for both the Atlantic and Pacific coasts, also foreign stations. We have a depot in the Philippines which we keep well stocked with field and garrison supplies for the regiments serving out there.

General ELLIOTT. The Pennsylvania Railroad Company has a freight station just opposite the Philadelphia depot. The company has a branch track which runs right back of this building and we intend to keep in store there enough goods so that we can throw every marine in the United States from Norfolk to Portsmouth, N. H., aboard ships fully armed and equipped in thirty-six hours, whether the ships sail from Boston, New York, Philadelphia, or Norfolk. We did have about 2,800 men at the gangway ready to sail in forty-eight hours in the last call for Cuba. That is our intention here.

Mr. PADGETT. I notice the language here is a little different from what has been used heretofore. This says "Toward the completion," while in a number of other places it says generally "To complete." What is meant by that special form?

Colonel DENNY. My idea was literally just what the words mean; it was toward the completion of a thing undertaken.

Mr. PADGETT. You do not expect this appropriation to complete it?

Colonel DENNY. Yes, sir; that is, finish the building programme at Philadelphia.

Mr. PADGETT. This is a complete thing, and you do not expect any additional appropriation?

Colonel DENNY. No, sir. Unless Congress increases the strength of the Marine Corps, the buildings completed, under construction and now proposed, will be sufficient for our requirements.

Mr. LOUDENSLAGER. Would it not be better to use the word, "for."

Colonel DENNY. No, sir. If you will allow me to make this suggestion; this language, as I understand it, is used generally by the Navy where the appropriation is intended to complete a part that has been done, and no objection, therefore, as I understand it, is raised on the floor on the point of new legislation.

Mr. PADGETT. On page 139, just below there, it said "to complete" in the bill last year. That is the language which has been ordinarily used in connection with the building of marine barracks, as well as improvements, etc., all through the bill. This says, "Toward the completion?"

Colonel DENNY. I intended to use the word "toward" each time. I do not know why I departed from it in that one instance.

Mr. PADGETT. On page 138 it is said in the appropriation of last year "For the purchase of ground adjoining the quartermasters' depot, Philadelphia, Pa., and erection thereon of an addition to said depot, at a cost of ground and building not to exceed \$200,000." Just below that erasure it says, "Toward the completion of the quartermasters' depot, Philadelphia, Pa., the purchase of ground adjoining such building, and the construction thereon of an armory, \$70,000." Is that \$70,000 in addition to the \$200,000 in the nature of a deficiency or is it entirely new work that was not embraced in the specification of the \$200,000?

Colonel DENNY. The latter. With this money it is proposed to build an addition to a building heretofore authorized by Congress.

Mr. PADGETT. And the \$200,000 will complete that building which was provided for in the appropriation of last year?

Colonel DENNY. Yes, sir. The building is in course of construction now, under contract. This is an addition to that which has been authorized by Congress.

The CHAIRMAN. The next item is "Toward the completion of amusement room and gymnasium for enlisted men, marine barracks, navy-yard, League Island, Pa., \$20,000." Have we heretofore appropriated for that amusement room?

Colonel DENNY. No, sir. The proposition here is to make an addition to the marine barracks authorized heretofore by Congress, the object being to afford the men a resort which will keep them in the barracks and keep them in a contented state. League Island, as you remember, is 3 or 4 miles from Philadelphia. We want to have billiard tables, bowling alleys, and other sources of amusement and comfort where the men can exercise and where they can play billiards, tenpins, checkers, chess, and cards. There can be a post exchange where the men can get soft drinks and eat, and all sorts of things they require when off duty and which go to make contentment, which is a material factor in efficiency. My personal opinion is that it would be a very good and wise thing to do. The men would make the barracks their home then in fact as well as name. I firmly believe that amusement rooms and gymnasia at all posts would tend materially to decrease desertions, now much too numerous. By preventing desertions we would save a lot of money annually, because the desertion of one man means the loss to the Government of the material, time, and money expended on him, also that which will be expended on his successor.

The CHAIRMAN. Have you any gymnasium or amusement room for them at any other station?

Colonel DENNY. Yes, sir; but nothing at League Island.

The CHAIRMAN. Where are they at present?

Colonel DENNY. There is a particularly good one here in Washington in the new barracks, which was completed last year, and there we have noticed the effects beneficial to the health, contentment, and efficiency of the command. The men do stay in the garrison and go to the gymnasium and go through the exercises which are good for them physically. They have a big recreation room, with bowling alleys and billiard tables, and they go there instead of rambling around town from place to place and getting into trouble.

The CHAIRMAN. The next item is: "Toward the completion of prison cells, grounds, fences, roads, walks, and sewers, marine barracks, navy-yard, Norfolk, Va., \$20,000?"

Colonel DENNY. Two years ago Congress authorized the construction of a new barracks at Norfolk. With the appropriation available we went as far as we could. The barracks have been completed. In the building there is a room for a prison, but we have no regular appropriation out of which we could spend that sum of money for the purchase of steel cells which are required, and a separate item was placed in the regular estimates for the appropriation bill. In addition to that the ground on which the barracks stand is an old farm. It is rough and has to be graded and also has to be drained.

The CHAIRMAN. How much of this estimate would be for the prison cells?

Colonel DENNY. They would cost about \$5,000.

The CHAIRMAN. You have some cells down there now?

Colonel DENNY. No, sir; none at all. There is just one big room in which all prisoners, whatever their offenses, are kept. There is no way of isolating the men and there is no way of confining court-martialed prisoners. They are put in the room with the men who are placed there for minor offenses. The remainder of the appropriation \$15,000, is for the improvement of grounds, erection of fences, making roads, walks, laying sewers, etc., which are urgently required.

Mr. PADGETT. I would like to ask you if the appropriation for the first item above there would not have a tendency to decrease the necessity of the second one?

Colonel DENNY. Yes, sir. But, unfortunately, even the Marine Corps has some bad cases who at times have to be locked up for misconduct.

The CHAIRMAN. The next item is, "Toward the completion of officers' quarters, marine barracks, navy-yard, Norfolk, Va., \$35,000." Colonel Denny, how many officers have you there?

Colonel DENNY. There are six to eight officers and there are quarters for three. Last year you gave us an appropriation for two additional sets. We advertised for bids and received eight proposals, and the lowest bid was very much in excess of the appropriation. The idea now is to build two more sets in addition to the two authorized last year, making three sets of quarters, so arranged as to make six houses.

The CHAIRMAN. Two more sets in addition to the two sets authorized last year?

Colonel DENNY. Yes, sir.

Mr. BUTLER. That is \$17,500 apiece?

Colonel DENNY. We have the same trouble about piling at Norfolk that we have at League Island. At both stations the ground is made and marshy, and all buildings are erected on piles of wood or cement. At Norfolk it will cost us \$2,500 for piles. Some of the piles will have to be 80 feet long. They varied in length from 60 to 80 feet in the new barracks. The bottom there is muck and we have to drive piles.

The CHAIRMAN. What do the officers do now?

Colonel DENNY. They live in Norfolk, across the river. This is unfortunate and embarrassing to discipline. The right idea is to keep the officers near the troops. The unwritten law is that the officers shall be quartered next to the troops, for obvious reasons.

Mr. BUTLER. Does it not add to the efficiency of the men to keep the officers there?

Colonel DENNY. Yes, sir. I think that is the real explanation of the efficiency of the Marine Corps, of which I don't hesitate to boast. Our officers are with the men constantly, practically. Drills and inspections are daily frequent. They are in fact as follows: Reveille, setting up, breakfast, drill, dinner, liberty men, retreat, supper, retreat, tattoo—ten regularly—and at least two or three more irregularly. These inspections are made by commissioned officers invariably, and I am sure that to this fact—contact frequently of commissioned officers with enlisted men—is productive of great good in the direction of discipline and efficiency, of which we officers of the Marine Corps are very proud.

Mr. PADGETT. When did the Government buy this land?

Colonel DENNY. Three or four years ago.

The CHAIRMAN. The next item is, "Toward the completion of marine barracks and officers' quarters, naval station, Charleston, S. C., \$75,000." Have we started any buildings there?

Colonel DENNY. There are no important marine corps buildings at Charleston now. That yard is being improved rapidly by authority of the Congress, and the commandant of the station and officers of the corps think it advisable to have a larger detachment of marines there and to provide suitable quarters for them.

The CHAIRMAN. You have some marines there now?

Colonel DENNY. Yes, sir; about 60.

The CHAIRMAN. You have a little building for that purpose?

Colonel DENNY. Yes, sir; a small temporary shed built of job lots, from time to time. These are unfit for quarters for American troops, any place, any time.

The CHAIRMAN. How many officers and marines will this building accommodate?

Colonel DENNY. Assuming you mean the new buildings recommended, I should think 100 men and two or three officers.

The CHAIRMAN. The next item is, "Toward the completion of marine barracks and officers' quarters, navy-yard, Mare Island, Cal., to cost \$200,000?"

Colonel DENNY. I think that is a very important item. The barracks now in use at Mare Island have been, as I told the committee last year, condemned by a board of officers on account of being badly wrecked by the earthquake two years ago which was so destructive in that section, and it is absolutely unsafe, in the opinion of Admiral McCalla and the civil engineer of the yard and the marine

officers attached to the barracks for men to live in the building. It can not well be repaired because it has been shaken in so many places and the cracks in the walls are distinct and serious. I inspected it two years ago and I thought it was very bad, actually unsafe.

Mr. LOUDENSLAGER. How much of this amount is intended for the barracks?

Colonel DENNY. Nearly all of it.

Mr. LOUDENSLAGER. It says "Marine barracks and officers' quarters?"

Colonel DENNY. This is "toward" the work. The barracks will cost, I should think, from \$250,000 to \$300,000 eventually, and the idea was to contract for a barracks of about that value at once, very much as you gentlemen authorize the construction of dry docks and other public works, Congress to appropriate each year a fixed sum for the payment of part of the whole contract instead of asking for the whole sum at one time, because we could not possibly build the whole in any one year.

Mr. LOUDENSLAGER. How much will be for the officers' quarters?

Colonel DENNY. I should think three sets of quarters at present, and as they have frame quarters at Mare Island, I should think they would cost \$12,000 each and that \$36,000 would be enough just now. Eventually we would have to spend more money. This is remote, though, as we have four officers' quarters at Mare Island.

Mr. MUDD. Pending the investigation as to the advisability of continuing the Mare Island yard would you advise that the appropriation be made?

Colonel DENNY. Yes, sir; even if Congress should abandon that yard entirely, it would take five to ten years to establish a new one elsewhere, very probably. Besides there is a plant of vast value at Mare Island.

The CHAIRMAN. The next item is, "Toward the completion of officers' quarters, marine barracks, navy-yard, Portsmouth, N. H., \$30,000." Have you started any there at all?

Colonel DENNY. We have a barracks and inadequate quarters for the commanding officer and insufficient quarters for the junior officers. This appropriation is to add much needed quarters for the men, and to provide more necessary quarters for the commanding officer and junior officers.

Mr. PADGETT. I would like to ask if there is deep water in the bay or harbor at San Francisco?

Colonel DENNY. There is a magnificent bay at San Francisco.

Mr. PADGETT. Is it deep enough?

Colonel DENNY. I think it is deep enough for any naval purpose.

The CHAIRMAN. At Portsmouth you say the building is for the commanding marine officer?

Colonel DENNY. No, sir. The idea is to build a double house, one-half for the commanding officer and one-half for one married officer or two bachelors. Now, the commanding officer lives in one wing of the barracks, the junior officers in another wing. There are only quarters for two junior officers there now, and at least four officers are required for garrison duty. When the prison, which has been authorized by Congress and is being constructed, is finished they will need more officers. If the two houses now asked for are given us, we would turn over these two wings to the enlisted men.

Mr. LOUDENSLAGER. What is the advantage in having marines at every navy-yard?

Colonel DENNY. The protection of naval property, amounting to many millions of dollars, and the training, disciplining of men who serve with the Navy, also at times with the Army. We now have a regiment of marines in Cuba serving under General Barry of the Army.

Mr. LOUDENSLAGER. They could be trained, disciplined, and drilled at any other yard just as well?

Colonel DENNY. Yes.

Mr. LOUDENSLAGER. Then, practically the only need of having them in all the navy-yards is simply for the protection of the yards?

Colonel DENNY. That is it. You can drill and discipline them just as well at one place as another. They are in the yards as the police force, the force to guard against fire, theft, and all disorders.

Mr. LOUDENSLAGER. It would not require very many marines as a police force to protect the yards?

Colonel DENNY. Yes, it would, if it is done in a thorough and military way, which I submit is the real way. For instance, the men mount guard in the morning and there are three reliefs. If you have 20 posts, that is a guard of 60 men, not including the corporals and sergeants and musicians. Those men are on post for two hours on and four hours off, and that continues for a period of twenty-four hours. The only relief would be to hire civilians at very much greater cost per man. As now arranged the Navy's property is well guarded and at the same time the Government secures an efficient military force, ready at all times for service at home or abroad.

Mr. HOBSON. Do you regard the presence of marine sentries and marine guards in any navy-yard as a valuable incentive toward an influence for discipline at the yards where there are enlisted men in the Navy assembled or liable to assemble?

General ELLIOTT. There are millions and millions of dollars invested in every navy-yard. No one knows what may happen. We have saved thousands and thousands of dollars in the case of fires by putting them out at the start. In the big cities, we do not know what may occur. Those men are there to protect Government property. I do not believe in bayonets against the citizens, but they are there to make property secure in time of trouble. If war comes, there is no danger of anything happening in the navy-yards. Everybody is interested in getting off to the war. Marines have abandoned the navy-yards, leaving just men enough to keep them going. These marines when embarked on transports are used for securing and holding a naval base, that the Navy may have a place to rendezvous. To-day if they were going to blockade a port, it would not necessarily be at the mouth of the port. When Togo blockaded Port Arthur his vessels were 60 miles away. So some troops have to hold the base, which allows the fleet to go away. This is one of the duties of the marines. We have three arms; we have the small arm, we have the automatic, and we are also drilled in the use of the 3-inch field pieces.

Mr. HOBSON. I would like to ask you whether the presence of the marine guard at the military or naval station has a disciplinary value like it has aboard ship?

General ELLIOTT. I think it is exactly the same thing, on the same par. That is my opinion.

Mr. PADGETT. In the matter of the health of the marines and for the discipline of the marines, is it better to have them all gathered into large collections or to have them distributed in reasonably small collections? In other words, would the discipline and health of the marines be better if they were kept in barracks where you had 5,000 or 6,000, or would it be better to distribute the 5,000 or 6,000 in several barracks and have 500 or 600 or 1,000 to the barracks?

General ELLIOTT. Of course if you just sought to build up the Marine Corps, just to make them splendid soldiers, and all that, we would like to collect them into large bodies, but we would not be so useful to the Government as when distributed among the navy-yards. Our usefulness would not be as great, except in time of war. It would be the ideal thing for the soldiers to be collected into great barracks, but our usefulness would not be as great as now.

Mr. BUTLER. What is your duty in the yards?

General ELLIOTT. Our duty is to look out for fires, prevent thieving from the outside in and the inside out, and to protect the yards.

Mr. BUTLER. To police the yards?

General ELLIOTT. Yes, sir; absolutely.

The CHAIRMAN. The next item is, "Toward the completion of marine barracks, navy-yard, Boston, Mass., \$20,000." Is that a new item?

Colonel DENNY. Yes. The idea was to add to the present barracks a storehouse in which to keep quartermaster's supplies. The Boston Navy-Yard, as you gentlemen probably know, is very small, and the barracks accommodates about 350 men, but it is so crowded at present that the officers at the station think, and we agree with them, that a storehouse or depot should be put outside of the building and that the space now occupied for that purpose be given to the men. I think it is a very important thing to do. We are very badly crowded there, and that is an important station, as far as the guarding of public property is concerned. There is also a naval prison there. The proposed new building would give space in the barrack for about 100 men.

The CHAIRMAN. The next item is: "Toward the completion of parade grounds and walks, marine corps reservation, Newport, R. I., \$8,000?"

Colonel DENNY. That has been recommended by a board of officers and approved by the commandant of the station. It is a case where they have reclaimed from the sea certain ground which has never been improved, and it is very rough and unsightly, and the idea is to grade it and sod it and add it to the drill ground.

The CHAIRMAN. The next item is: "Toward completion of officers' quarters, marine barracks, navy-yard, New York, \$35,000?"

Colonel DENNY. The desire is to build two additional sets of officers' quarters. There are now six sets or flats. There are as many as eight or ten officers there. This is probably our biggest and most important station.

The CHAIRMAN. That will accommodate how many officers?

Colonel DENNY. Six officers now. With these proposed quarters we would accommodate in all eight or ten officers, depending on whether they are married officers or bachelors.

Mr. PADGETT. Thirty-five thousand dollars is to build two sets?

Colonel DENNY. Yes, sir. That is another case of piling, as the marines' section of the station is marshy, and the foundations of all buildings are set on piles.

Mr. PADGETT. Two double houses?

Colonel DENNY. Two houses under one roof—twin houses. They must be of brick, as frame buildings too readily burn down in case of fire, and are also expensive to maintain.

The CHAIRMAN. The next item is, "Toward the completion of the storehouse, marine barracks, navy-yard, New York, \$30,000?"

Colonel DENNY. As is well known, the Atlantic Fleet goes to New York frequently. As many as 20 ships may be there or near there at one time, and they get many stores and supplies from the quartermaster's department at New York. New York subsequently replaces them from Philadelphia. To make it possible promptly to fill requisitions for supplies for the fleet, the idea is to have a storehouse at New York in which the supplies could be kept. The space occupied by supplies would be given over to enlisted men. We are very much crowded there. Sometimes the bunks are not only on the side of the dormitories, but there is a double row down the middle. This is bad for the men's health, and it was deemed wise to get this addition and relieve the congested condition of the barracks. Then we would have a much needed storehouse and increase the men's comfort.

The CHAIRMAN. Do you regard that as more important than the officers' quarters?

Colonel DENNY. I think both are important. I have been there frequently and know how uncomfortably the officers are forced to live. Not for ten years have we added to the accommodations at this port, but steadily it has grown in importance. I am earnestly of the opinion that both these estimates should be allowed.

The CHAIRMAN. The next item is: "Toward the completion of officers' quarters, naval station, Olongapo, P. I., \$20,000."

Mr. HOBSON. How many men have you in the Philippine Islands?

General ELLIOTT. We have 1,211 men altogether in the Philippine Islands and 35 officers.

Mr. LOUDENSLAGER. How many men have you at Olongapo?

General ELLIOTT. Eight hundred.

The CHAIRMAN. The next item is: "For installing electric lights and heating system, marine barracks, Sitka, Alaska, \$5,000."

General ELLIOTT. Oil costs 40 cents a gallon there.

The CHAIRMAN. Can not you provide for this out of your general appropriation?

General ELLIOTT. No, sir. The buildings are tumbling down, and the place has to be fixed up. Now we have a coaling station there to guard and in addition a wireless plant.

The CHAIRMAN. The next item is: "Toward the completion of marine barracks and officers' quarters, Canacao, P. I., \$56,000."

Mr. MUDD. Where is that?

Colonel DENNY. It is on the peninsula opposite Cavite.

General ELLIOTT. As long as we hold the Philippine Islands we must have some place to put the men.

Colonel DENNY. The navy-yard at Cavite is gradually taking all the buildings which were originally given to us. The importance of that station has increased, and we think the best thing to do is to

give up the one remaining building we have and go over on this isthmus and build a temporary frame building where the men can be accommodated. Then, when you gentlemen decide on a definite policy, or building programme in the Philippines, we will prepare proper estimates for your consideration.

The CHAIRMAN. The next item is "Pay, Marine Corps; For pay and allowances prescribed by law of officers on the active list, \$609,713."

Colonel RICHARDS. There is a slight increase over last year's appropriation, because of a greater proportion of officers serving abroad and a greater proportion of officers who became entitled to longevity pay during the year.

The CHAIRMAN. The next item is "For pay of officers prescribed by law, on the retired list, \$115,000." That is the same as last year?

Colonel RICHARDS. Yes, sir; but there have been some slight changes in the retired list.

The CHAIRMAN. You can not reduce this amount?

Colonel RICHARDS. No, sir; the amounts are provided for by law, and they have been carefully calculated.

Mr. PADGETT. On page 191 I notice that instead of 7 lieutenant-colonels you have 8, and instead of 6 captains you have 7, and instead of 7 first lieutenants you have 9?

Colonel RICHARDS. Last year's bill specified only the number of officers then on the retired list. Since then there have been retired certain officers, which means a corresponding change in the grades on the retired list. We have made no change in the amount, however, because we find that there will be enough money.

If you will refer to page 196, there is an item, "For interest on soldiers' deposits, \$4,000, and so much as may be necessary to refund such deposits." The Treasury Department have asked us to insert after the word "including" the words "interest on deposits by enlisted men," and to cut out, on page 196, "for interest on soldiers' deposits, \$4,000, and so much as may be necessary to refund such deposits." They have asked that that be done because that requirement "and so much as may be necessary to refund such deposits" means that a different rule obtains in the Marine Corps from that which obtains in the Navy. The amounts which these men deposit are carried in the Navy to the credit of a deposit fund, which remains on the books of the Treasury until the amounts are paid on discharge. If the rule which has been laid down here should be followed, it means that whatever money is deposited during the year has to be reappropriated in subsequent years in order to pay it out. They do not wish that to be done. At the same time, whatever money is deposited is available for other disbursements, and they do not wish that to be done. It simply follows what is shown on page 3 of this act for the Navy. In the general appropriation for the pay of the enlisted men of the Navy there is a little item, "interest on deposits by men." We want you to put the words "interest on deposits by enlisted men" after the word "including," on page 192. Of course it will be necessary to add this sum of \$4,000 to the total, which would make \$1,954,084. Of course that \$4,000 is dropped from page 196.

Mr. GREGG. There is certain verbiage stricken out on page 192?

Colonel RICHARDS. The insertion of the word "hereafter" made a continuation of this verbiage unnecessary.

There are new words, "including the authorized travel allowance of discharged enlisted men." There has always been included in this lump figure, \$1,954,084, the money necessary to pay this travel allowance. It formerly was known as "travel pay." When a man is discharged the Government obligates itself to return him to the place where he was enlisted. They paid him at one time one day's pay, one day's rations, and one day's clothing allowance for each 20 miles of the journey. Six years ago they wiped that out and made it a mileage proposition, 4 cents a mile for that distance. This was the army law. Now it is also the navy law. When it was changed to 4 cents a mile it lost its status as pay and became more in the nature of an allowance. Of course the Marine Corps still continues to have it, and we put these words in so that the committee might understand it is in the bill and in order to remove any question of doubt as far as technicalities are concerned.

The CHAIRMAN. Has the Comptroller raised any question about it?

Colonel RICHARDS. No, sir; but we put it in so that the committee might understand that it is in the bill. It is the money spent for the very proper purpose of returning the men to the place of enlistment.

Mr. LOUDENSLAGER. On page 191 you have inserted the word "cooks?"

Colonel RICHARDS. By referring to page 192 of the bill you will see the proviso concerning cooks which was inserted in last year's act. That was in the nature of permanent legislation, and it is no longer necessary to include it, but it is necessary to show the committee that the cooks' pay is still included and to drop out the general legislation.

The CHAIRMAN. The next item is "for pay and allowances prescribed by law of enlisted men on the retired list, \$84,469." That is an increase?

Colonel RICHARDS. Yes, sir. An increase arises there by reason of the fact that the retired list itself has materially increased and also by reason of the fact that last year at the close of the session of Congress a law was passed granting to retired enlisted men an increase of allowance of \$6.25 monthly for heat and light, I think, and of course we must include that, and it makes an increase.

Mr. BUTLER. This is on account of the change in the law?

Colonel RICHARDS. It simply provides the amount necessary to meet the requirements of the law.

Mr. BUTLER. Because the retired list has increased in size?

Colonel RICHARDS. Yes, sir.

The CHAIRMAN. The next item is: "Undrawn clothing, \$98,707.80." There is an increase?

Colonel RICHARDS. The increase in that amount is explained by the fact that we expect more men to be discharged during the next fiscal year than heretofore. We estimate that during the fiscal year about 3,000 enlisted men will be discharged. Of course the enlisted men who have saved in their clothing allowance are entitled when discharged to be paid the money value of the clothing they have saved, and this estimate is put in for that purpose. If they draw the clothing and do not save the money, the charge comes in the appropriation for "clothing." If they do save it, they receive the money value of their savings.

Mr. LOUDENSLAGER. Why should not that be taken out of the appropriation for "clothing?" If we appropriate the money to buy

the clothing and you do not expend the money, why not get the money out of that appropriation?

Colonel RICHARDS. This comes under "Pay of the Marine Corps," which includes the pay which the man is entitled to receive on discharge, and for that reason it is included in the regular pay. It is immaterial whether it comes out of one appropriation or the other. The two appropriations must be considered together.

Mr. PADGETT. If you do not use the money out of the "clothing" appropriation and do use it out of this appropriation, "undrawn clothing," will there be a corresponding surplus in the other appropriation?

Colonel RICHARDS. A corresponding increase in money surplus or in the clothing in kind, which clothing would be issued to the next man who would need it.

The CHAIRMAN. I wish you would put in the hearing a statement of what each man is entitled to draw and show just what it consists of?

Colonel RICHARDS. Yes, sir.

Money allowance for clothing of enlisted men of all ranks for one year and one day for first year and second and succeeding years of enlistment.

Rank.	First year.		Second and succeeding years.	
	1 year.	1 day.	1 year.	1 day.
Sergeant-major, quartermaster-sergeant, and second leader of band.....	\$105.85	\$0.29	\$51.10	\$0.14
Drum major.....	142.15	.39	47.45	.13
First sergeant and gunnery sergeant.....	102.20	.28	51.10	.14
Sergeant, corporal, and first and second class musicians.....	98.55	.27	51.10	.14
Private of band, field music, and private.....	94.90	.26	47.45	.13

Second leader of band to have the same allowance as sergeant-majors. (Act of Congress approved March 3, 1899.)

Gunnery sergeants to have the same allowance as first sergeants. (Act of Congress approved March 3, 1899.)

First and second class musicians of the band to have the same allowance as sergeants. (Act of Congress approved March 3, 1899.)

INSTRUCTIONS.

1. No article of clothing will be issued gratuitously except insignia for first and second class gun pointers, service chevrons, and special full-dress band uniform, as hereinbefore provided for; such articles as may be issued to replace those destroyed to prevent contagion or through fighting fire, as provided in paragraphs 107 to 112, inclusive, System of Accountability, U. S. Marine Corps, 1904, and such articles as may be issued on specific authority of the quartermaster, in each case authority to be obtained before the issue is made. All issues other than those excepted will be charged as "regular" and the money value thereof entered against the accounts of the men on the clothing-account roll.

2. Recruits may have issued to them during the first three months of service the following articles only: 2 blankets, woolen; 1 cap, undress; 1 cap ornament; 1 coat, undress, field or summer; 1 overcoat; 2 drawers, nainsook, light or heavy; 2 undershirts, cotton, light or heavy; 4 gloves, cotton, pairs; 1 shoes, leather, black or russet; 2 shirts, flannel; 3 socks, cotton or woolen; 1 suspenders; 1 trousers, woolen, field or summer undress; 1 trousers belt.

During the second three months the following articles only: 1 coat, undress, field or summer; 4 gloves, cotton, pairs; 1 leggins; 1 shoes, leather, black or russet; 1 trousers, woolen, field or summer undress.

If the period of service be during the summer months, or in a warm climate, only the necessary summer clothing will be issued. The commanding officer will consider the rigors of the climate and determine whether or not the issue of the overcoat

and two blankets is necessary; if not deemed necessary, only one blanket and no overcoat will be issued. Full-dress uniform will be issued only when men are ordered to duty afloat. The foregoing allowance is intended to meet all the requirements of a recruit during the first six months of service, and will not be exceeded except in cases of emergency or to meet the requirements of the service.

3. When men lose, through neglect, or sell any article of clothing which renders necessary another issue of the articles lost or sold, the money value of such issues will be checked against their pay whether the limit of indebtedness has been reached or not. The commanding officer will determine all points involved, and the issuing officer will be informed of the decision in such cases for his guidance.

4. Officers and noncommissioned officers in charge of clothing are authorized to issue to enlisted men, other than recruits in the first six months of service, such of the various articles of clothing as they may actually require without making any charge against the pay of the men on account of excessive issues, so long as the total money value of all articles issued, irrespective of kind, does not exceed the total amount of the annual allowance for the current year of enlistment. When the indebtedness for clothing drawn exceeds the amount of the allowance for clothing for the remaining portion of the current year of a man's enlistment, the amount in excess will be checked against the pay on the pay roll for the month in which the excessive issue is made.

The CHAIRMAN. The next item is "mileage," and there is an increase of \$5,000?

Colonel RICHARDS. That is based on the expenditures of last year. The recruiting service has called for a great deal of expense in meeting the traveling expenses of officers. We have recruiting stations in the middle west and as far west as North Dakota, and these officers in traveling from recruiting station to recruiting station are under considerable expense.

Mr. BUTLER. Is it not a fact that the Marine Corps is fully recruited?

Colonel RICHARDS. Yes, sir.

General ELLIOTT. Every man.

Mr. BUTLER. I understood you had a waiting list?

Colonel RICHARDS. Yes, sir; we can now pick who we want and get the best.

The CHAIRMAN. The next item is: "For commutation of quarters of officers on duty without troops when there are no public quarters, \$30,000." That is an increase of \$10,000?

Colonel RICHARDS. Yes, sir. I want to call your attention to the fact that last year there was an increase allowance of rooms granted by Congress to officers in the military service, and that necessitates a corresponding increase in the appropriation. I think a lieutenant has one more room allowed him, and so on up each grade.

The CHAIRMAN. That was under the army bill?

Colonel RICHARDS. Yes, sir. It became applicable to the Marine Corps. During the year we expect to have a few more officers than formerly, serving under conditions entitling them to commutation of quarters.

Mr. PADGETT. What is the present limit of the enlisted force of the Marine Corps?

General ELLIOTT. Eight thousand seven hundred and seventy-one enlisted men and 277 officers.

The CHAIRMAN. The next item is: "Pay of civil force." You ask to increase the salary of the chief clerk from \$1,600 to \$2,000 and the salary of one clerk at \$1,200 to \$1,400?

Colonel RICHARDS. Those are increases in the salaries of men who are now appointed under civil-service rules. Their duties are very responsible and call for a great deal of original work, and the rate of

salary that they have been paid and are now receiving is far below what competent men should receive. These increases are asked for by General Elliott and the clerks are in his own office.

Mr. GREGG. What is the chief clerk's salary?

Colonel RICHARDS. One thousand six hundred dollars. It is not a large increase, but it means a great deal to the man and a great deal to the office.

General ELLIOTT. He is a faithful and an efficient man and I want to put him on a par with other clerks in the Navy Department.

Mr. PADGETT. On page 194 I notice one clerk at \$1,500. I notice in a good many of the other places in the bill in other bureaus that the clerks are changed from \$1,200 to \$1,400, but I have not especially noticed any at \$1,500. For instance, just below here at the close of page 194 there is one change from \$1,200 to \$1,400. Now, is this \$1,500 clerk by himself or is he just a part of the general scheme or programme?

Colonel RICHARDS. Years ago the pay of that clerk was some figure like \$1,473.22. It was made up from certain allowances which enlisted clerks received at that date, and then in order to change the rate of pay and make it an even figure it was placed at \$1,500. The rates of pay mentioned here are based on the classified service and they run from \$1,000 up.

Mr. PADGETT. I notice they run \$1,000, then \$1,200 and then \$1,400, but here seems to be one standing out alone at \$1,500, and I did not know whether you had a \$1,500 class?

Colonel RICHARDS. No, sir; he is in class 3, I think that is what it is designated in the classified service. I would not be sure about it.

The CHAIRMAN. Are the clerks mentioned on page 195 of the bill new?

Colonel RICHARDS. They are new clerks asked for by the quartermaster's department.

The CHAIRMAN. Are they employed now under the per diem?

Colonel DENNY. They do not exist, we are asking for them.

Mr. BUTLER. These are new clerks?

Colonel DENNY. Yes, sir.

Colonel RICHARDS. There has been no material increase in the civil establishment of the Marine Corps for the last eight or ten years; however, the work has increased three or four times.

Colonel DENNY. Congress has doubled the strength of the Marine Corps without increasing the clerical force much?

The CHAIRMAN. Are not some men doing this work now?

Colonel DENNY. Enlisted men detailed for that work.

The CHAIRMAN. Do they not do it satisfactorily?

Colonel DENNY. Let me explain, Mr. Chairman. In the office of the paymaster and in the office of the quartermaster we are handling Government money and public vouchers covering the expenditures. These are things with which enlisted men should have nothing to do. We ought to have civilian clerks from whom we can exact a bond for the faithful performance of their duties, and if anything goes wrong we have redress, we can go to the surety company or the bondsmen and be reimbursed. That can not be done in the case of the enlisted men, and while they are excellent men, and I do not mean to criticise them, it puts us in a hard position—responsible for any

accidental or intentional mistakes or misdeeds of enlisted men who come to us from the ranks, and about whom we know little as to character and habits.

The CHAIRMAN. The men who are now doing this work would not hold these new positions if they were allowed in the bill?

Colonel RICHARDS. They would have to be appointed through the civil service.

The CHAIRMAN. Would the same men ultimately hold these new positions?

Colonel DENNY. No, sir.

Colonel RICHARDS. There have been cases where the enlisted men got the position, but very rare; some unusual merit must be shown.

Mr. MUDD. What are you asking for, one clerk? It says "In the office of the assistant quartermaster, Washington, D. C., or San Francisco, Cal., or the Philippine Islands, one clerk, at \$1,400."

Colonel DENNY. That is right; that means one man there. The accounting officers of the Treasury Department will not pay salary to a man, for instance, who is in the appropriation bill stationed at Washington if he is performing duty at San Francisco. We have to mention all the various places where this man may be assigned to duty to enable him to get his pay.

In that connection I want to speak especially about the Philippines. We are entitled to one clerk out there and the paymaster has one clerk. We had an illustration of a case a few days ago. This man is required to be there all the time. He gets \$1,400 a year, I believe it is. He has no opportunity of getting leave, of leaving the islands, and it is a very important thing for the man's health that he should get a change of climate. It seems every one does except the quartermaster's clerk and the paymaster's clerk.

The CHAIRMAN. It is necessary to put in this language?

Colonel DENNY. Yes, sir; otherwise he could not get his pay, unless you struck out all this language. As a matter of fact, I see no necessity for it. If the law read "* * * blank clerks in the Quartermaster's Department" that would be sufficient, and we assign the clerks according to public requirements.

The CHAIRMAN. Where would you put him?

Colonel DENNY. I would use him in the Quartermaster's Department and assign him to any duty that may be necessary. As to the language "In the office of the assistant quartermaster, Washington, D. C., or San Francisco, Cal., or the Philippine Islands," for instance, we have had for a long time a depot at San Francisco, and we had an urgent call from there and the clerk on duty here necessarily had to go to San Francisco to work. He could not be paid unless San Francisco was specifically named. If the man in the Philippine Islands should be taken sick, the man in San Francisco would be the natural one to send there in order to save the cost of his transportation across the continent.

Mr. MUDD. If you wanted a clerk to go to the Philippines would you appoint him from Washington?

Colonel DENNY. No, sir. We would make a requisition on the Civil Service Commission for one clerk, stating the salary and stating generally the necessary qualifications.

Mr. LOUDENSLAGER. If the clerk in the Philippines should become sick and not be able to perform his duties, what would you do?

Colonel DENNY. The doctor would probably certify to his illness and send him to the high hills or home. Temporarily we should have to rely on enlisted men until indeed we got the same clerk back or sent a substitute from here or San Francisco.

Mr. LOUDENSLAGER. What would you do in order to have his duties performed?

Colonel DENNY. I do not know, except as stated. The situation would be embarrassing, extremely so.

The CHAIRMAN. The next item is: "Provisions, Marine Corps," \$648,543. There is an increase of \$100,000?

Colonel DENNY. Yes, sir.

The CHAIRMAN. What is the necessity for that?

Colonel DENNY. That is due to the fact that the price for provisions which form the component parts of the marine's ration has increased about 16 per cent. The average cost of the ration last year was \$21.29 per hundred. This year it is \$24.66 per hundred. I have a table giving the cost of rations at each post, and in every instance there is a material increase, the average percentage of increase being, as I stated, 16 per cent.

General ELLIOTT. One thousand men in Cuba are costing us 25 cents a day each.

Colonel DENNY. It varies at different places. We get our rations through local contracts, entered into each year after due competition.

The CHAIRMAN. Have you an itemized estimate of this which you can put in the hearing?

Colonel DENNY. Yes, sir.

Statement showing the contract price of rations at the several posts of the Marine Corps during the fiscal years 1907 and 1908.

Post.	Per 100 rations.	
	1907.	1908.
Portsmouth, N. H.	\$16.73	\$20.74
Boston, Mass.	15.75	14.90
Narragansett Station, R. I.	21.00	26.25
Iona Island, N. Y.	35.50	34.25
New York, N. Y.	17.22	18.23
League Island, Pa.	18.75	21.25
Annapolis, Md.	21.75	21.48
Marine Barracks, D. C.	17.23	23.00
Navy Yard, D. C.	17.23	23.00
Norfolk, Va.	15.85	15.90
Charleston, S. C.	29.00	35.00
Port Royal, S. C.	22.50	24.00
San Juan, P. R.	28.75	29.05
Key West, Fla.	34.50	34.00
Pensacola, Fla.	22.20	26.00
New Orleans, La.	22.00	27.00
Sitka, Alaska.	34.00	48.00
Bremerton, Wash.	19.70	22.40
Mare Island, Cal.	15.15	17.21
San Francisco, Cal.	15.35	17.41
Honolulu, Hawaii.	20.13	20.33
Williamsburg, Va.		28.50

Average cost of rations 1907, \$21.29; 1908, \$24.66 per hundred, or an increase of 16 per cent.

The CHAIRMAN. The next item is: "Clothing, Marine Corps," \$650,920. There is an increase of \$50,000?

Colonel DENNY. Yes, sir. That is due partly to the fact that we have 1,000 men in Cuba serving in the field, and such work is par-

ticularly hard on their uniforms, very destructive, and we have to replace them more often than in the case of men serving on shore at home. Their shoes, trousers, and coats are cut to pieces. Another reason for that increase is the increase in the cost of material, especially in linen and cotton goods and leather and rubber supplies. That increase is about 10 per cent.

The CHAIRMAN. The next item is "Fuel, Marine Corps," \$110,000, an increase of \$30,000 over last year?

Colonel DENNY. That proposed increase is due to the Army act which increased the number of quarters that officers are entitled to and therefore the amount of fuel that they consume.

The CHAIRMAN. How much more fuel are they allowed now than they were before?

Colonel DENNY. Congress increased the number of rooms to which officers are entitled and of course that means more fuel, the quantity of fuel being based on the number of rooms allowed.

The CHAIRMAN. This is fuel for enlisted men, not for officers?

Colonel DENNY. Oh, no. By the time this appropriation becomes available we will have the barracks at New London, San Francisco, Algiers, and Guantanamo, which will have to be supplied with fuel just as the other regular posts are. There are new stations and this is the second reason for increasing this appropriation.

The CHAIRMAN. What is the necessity for this new language "and for commutation of light for enlisted men regularly detailed and clerks and messengers, at \$2 a month?"

Colonel DENNY. There is a recommendation which I submit to the committee as a fair thing to the enlisted men. For instance, an enlisted man who is detailed for special duty such as those in my office or in General Elliott's office, is entitled to his commutation for fuel and for quarters, but he gets no commutation for light. He has to provide light as well as fuel and rooms and we recommend to the committee that the men be allowed \$2 a month for commutation of light.

Mr. LOUDENSLAGER. What kind of light do they use?

Colonel DENNY. Gas or lamps or electric.

The CHAIRMAN. Is this allowed in the Army?

Colonel DENNY. I believe it is before the Committee this year.

Mr. OLCOTT. Can you tell me how much of this proposed increase of \$30,000 is covered by the light commutation?

Colonel DENNY. It is under \$5,000.

The CHAIRMAN. Under the heading, "Military stores, Marine Corps," there is inserted "assistant armorer, at \$3 per day?"

Colonel DENNY. That is in line with the recommendation we made under the head of "public works" for the construction at Philadelphia of an armory. We now have an armorer and the recommendation is that we be given an assistant armorer, the idea being that all repairs to the rifles be made at Philadelphia, instead of letting them out by contract or having them done by the Army.

The CHAIRMAN. How do you do that work?

Colonel DENNY. Through the Army largely, and by contractors throughout the country.

The CHAIRMAN. The work that the assistant armorer would do is being done by enlisted men?

Colonel DENNY. The work is not done there. It is done at Rock Island or at the Springfield Armory, generally. If it is a rush job we have the work done where the damage occurs.

The CHAIRMAN. You drop one mechanic?

Colonel DENNY. We propose to promote one mechanic to the rank of assistant armorer at \$3 per day and reduce the number of mechanics by one.

The CHAIRMAN. Further down in the paragraph there is new language—"and medals awarded to officers and enlisted men by the Government for conspicuous, gallant, and special service?"

Colonel DENNY. That arises especially in connection with the Chinese expedition in which a number of our officers and men took part. It has been decided that the Marine Corps is entitled to wear the medals the same as the Army. They cost a dollar apiece. The enlisted men can not well afford to buy them. The Army does not make their enlisted men pay for them, and the recommendation here is that we be authorized to buy the medals.

Mr. OLCOTT. How much does that amount to?

Colonel DENNY. With the men now in service, I doubt if we would find five hundred.

General ELLIOTT. But even if they are out of the service, they will come back for the medals. I think there will be more than five hundred.

Colonel DENNY. Say \$800.

The CHAIRMAN. And then with the officers how much would it cost,

Colonel DENNY. The officers have to pay for the medals themselves.

General ELLIOTT. The medals are struck off at the mint and the officers pay for them.

Mr. GREGG. Then, can not the word "officers" be stricken out?

Colonel DENNY. Yes, sir.

The CHAIRMAN. What is the rule about it in the Army?

Colonel DENNY. I think it is the same. I do not know of any medal or badge being presented to an officer. It may be, though.

Mr. HOBSON. They are presented to the officers in the Navy?

Colonel DENNY. Yes, sir.

Mr. HOBSON. Why should they not be presented in the Marine Corps?

Colonel DENNY. I think they should be.

The CHAIRMAN. As I understand, the Army requires the officers to pay for their own medals.

Colonel DENNY. Yes, sir; if my memory is good.

The CHAIRMAN. How is it with the enlisted men in the Army; do they pay for them?

Colonel DENNY. No, sir.

The CHAIRMAN. How does the medal for the officer differ from the medal to the enlisted man?

Colonel DENNY. It is the same thing; it costs a dollar.

The CHAIRMAN. Has there not been an authorization of law heretofore for medals for officers and enlisted men?

Colonel DENNY. Yes, sir.

The CHAIRMAN. What is the use of putting in this language?

Colonel DENNY. We have not this exact language. We have no authority of law to purchase the China medals.

Mr. GREGG. The Navy and Army have the authority?

Colonel DENNY. The Navy has it; that is, the Navy is asking for it, and the Army has it now according to my recollection.

Mr. BUTLER. There is a provision of law authorizing you to present these badges?

Colonel DENNY. We can buy certain badges, the kind that are specifically mentioned in the appropriation act, and only those. For instance, "good-conduct badges," "badges for rifle practice," and so on, we can buy, but we can not buy badges or medals given for conspicuous, gallant, or special service unless we have a specific law to do it.

General ELLIOTT. This medal is given for special service to the men who served with the Army in China and in the Philippines in action.

The CHAIRMAN. The words "purchase of sites" is inserted in this paragraph. What is the necessity for that?

Colonel DENNY. That is for sites for target ranges. Nowadays we rent or lease a range and necessarily go to considerable expense, probably two or three thousand dollars, to improve the range and put it in good condition for rifle practice. About the time we get the site in good condition the owner—it having been improved appreciably—wants to sell it and he fails to renew the lease to the Government or he will not renew the release, and we are put to the embarrassment and expense of hunting a new site and improving that.

The CHAIRMAN. Will this language allow you to buy a whole lot of land?

Colonel DENNY. The idea would be to get a site as near the post as possible, and get a strip of land over which to fire small arms.

Mr. LOUDENSLAGER. Where do you have the ranges now?

Colonel DENNY. There is one at Williamsburg, just below Norfolk. We rent Creedmoore, N. Y., range each year. We also have a range at Bremerton, Wash., under a lease.

Mr. LOUDENSLAGER. You have some ranges now?

Colonel DENNY. Yes; three rented ranges.

The CHAIRMAN. What is the total cost of the equipment of one of these sites?

General ELLIOTT. The prices are different at different places.

The CHAIRMAN. How much would it cost?

Colonel DENNY. Three thousand five hundred dollars for each site, probably.

The CHAIRMAN. How many acres would there be in a site?

Colonel DENNY. Just a strip of land, I suppose, 1,600 feet long by not exceeding 200 feet wide.

General ELLIOTT. If there is a hill back of it, 1,600 feet would be enough; but it ought to be 2,000 feet in length.

Colonel DENNY. Let us say 1,000 yards long and 100 yards wide, to guard against wild firing causing damage.

The CHAIRMAN. How much did the Williamsburg range cost?

Colonel DENNY. That we only lease. I believe we could buy a good range in the country for from \$3,000 to \$3,500.

The CHAIRMAN. A number of miles away from Williamsburg?

Colonel DENNY. Yes, sir; absolutely safe. We have an artificial butt 45 feet high and back of that is earth so that there is no possible danger. A recruit could not very well miss the target against that butt.

Mr. HOBSON. You would need more than a thousand yards?

Colonel DENNY. Twelve to fourteen hundred yards, but for practice you could get along with a thousand yards. Fourteen hundred would be better, of course.

The CHAIRMAN. It is not the intention to purchase a number of sites.

Colonel DENNY. No, sir. I should think two on the Atlantic coast would be enough. We can put the men on the train and send them to the range for instruction and then send them back to their respective posts.

The CHAIRMAN. When you rent a range how much do you pay a year?

Colonel DENNY. The expense is trifling. I do not imagine the whole cost is more than \$10 a day.

The CHAIRMAN. At your other ranges how much do you have to pay?

Colonel DENNY. At Bremerton \$400 a year; at Williamsburg \$300. But the point is that we never know how long we can keep a rented range. We may lose it any time at the end of yearly lease. Buying sites—say, two on the Atlantic and one on the Pacific coast—is decidedly wiser.

The CHAIRMAN. The next item is: "For the purchase from the Ordnance Department, United States Army, to equip the United States Marine Corps, 9,000 United States Army magazine rifles, latest model."

Mr. BUTLER. What rifle are you now using?

General ELLIOTT. The Army is now using a rifle called "Model 1903, Springfield." The Marine Corps is using the Krag.

Mr. BUTLER. What does the Navy use?

General ELLIOTT. The Navy is using the Krag.

Mr. HOBSON. What will you do with the Krag when you get the new supply?

General ELLIOTT. They allow us \$3 for the old rifle that we turn in and they are sent back to the factory and they put \$3 worth of work on them, and they are then stored to furnish the volunteers when war breaks out. They are the reserve arms on hand. The Army has now given all their troops the new rifle, the multiple loader. We have a thousand men in Cuba and we are using the Krag. They are using the new multiple loader. Their rifle has about one-fourth more fire capacity (i. e., efficiency); it is a better arm.

Mr. PADGETT. You spoke of returning them to the Army; that you got credit for \$3 and then they put \$3 worth of work on them and stored them away for the possibilities of a volunteer service or something of that kind?

General ELLIOTT. Yes, sir.

Mr. PADGETT. Does that necessitate the manufacture and keeping on hand of ammunition suitable for those guns?

General ELLIOTT. Yes, sir; that ammunition is all stored and kept.

Mr. PADGETT. The other day one of the officers before us was insisting that the Navy should have the improved army gun, called the multiple rifle gun, in order that there might not be a diversity of ammunition between the Army and Navy and that they might have exchangeable ammunition, but if actual war conditions were to arise, then you would have that condition, would you not, the Krag coming in with the volunteers?

General ELLIOTT. The second line would be obliged to have it; but we have now 173,000 or 174,000 of the new rifles. They would arm with the new rifle as far as it went, and they are manufacturing them every day.

Mr. PADGETT. I understand. If the volunteers or those having these guns were brought into association with the Navy, then the very condition the Navy is trying to avoid now would arise?

Colonel DENNY. It would depend. If put off a few years, the Army would have made, possibly, a sufficient number of the new rifles to arm all the volunteers.

Mr. PADGETT. These others will be useless?

Colonel DENNY. Yes, sir.

Mr. PADGETT. What is the necessity of expending the \$3 on them when they are returned when that result is expected in two or three years?

General ELLIOTT. It is a part of the plan to have them ready. There are not enough arms now in the country.

Colonel DENNY. If you look at it from the Army point of view, it costs \$3, and if you look at it from the Marine Corps point of view you are saving \$3 on the cost of the rifle.

Mr. PADGETT. You get \$3 for every one turned in?

Colonel DENNY. Yes, sir.

Mr. PADGETT. So it really costs the Government \$6?

Colonel DENNY. It is a matter of bookkeeping. In theory they give us \$3 for every rifle turned in.

Mr. PADGETT. I understand. The \$3 is used in work in overhauling the gun. Now, if the gun is to be useless in two or three years and the Army will be supplied fully with guns, why should this expenditure be made?

Colonel DENNY. They give us credit for \$3 for every rifle turned in; therefore they sell the new rifle at \$3 less than they otherwise would.

The CHAIRMAN. How long has the Marine Corps been using the Krag gun?

Colonel DENNY. Since 1899, shortly after the close of the Spanish war.

The CHAIRMAN. Then, in 1903 the Army got out this new rifle?

Colonel DENNY. Yes, sir.

The CHAIRMAN. What are the prospects of another change?

Colonel DENNY. Not any. They seem to have a perfected arm which has been tested for nearly five years, and that is a pretty thorough test. The ordnance officers and the officers of the line think it is a very fine arm. We have a regiment in Cuba to-day serving with the Army. We are using the Krag-Jorgensen and its ammunition and the Army is using the new model rifle and its ammunition. If we get together and should run out of ammunition we would be absolutely helpless.

The CHAIRMAN. You will always have enough ammunition?

Colonel DENNY. The quartermaster always tries to do that, but he may slip up. If the same ammunition was available, the efficiency would be greater.

Mr. LOUDENSLAGER. How long do you keep these men at the different stations, in Cuba, for instance?

Colonel DENNY. Two years.

Mr. LOUDENSLAGER. Do you change part of them?

Colonel DENNY. In the natural course of events they are changing all the time; in small numbers, I mean.

The CHAIRMAN. The next item is, "Military supplies, Marine Corps: For military supplies for use in special emergencies, \$200,000." That is a new item?

Colonel DENNY. We had that matter before the committee last year. We were directed by the Secretary of the Navy again to incorporate it in the estimates and more fully to explain it to the committee. The idea, which originated with the general board, is that we should have in the East at some barracks or storehouse equipment for one regiment and in the Philippines equipment for another regiment.

General ELLIOTT. One thousand six hundred men each.

Colonel DENNY. Clothing, arms, and accoutrements, everything the men would require for actual field service. It seems to us to be an important thing for this reason: We have no surplus of any kind. We do not run that way in the Marine Corps. I mean our appropriations are not large enough to enable us to collect a surplus of any consequence. We ask you annually for what we require for that year. We have not at San Francisco, in the Philippines, or at Philadelphia a surplus that would last three months, and if we did get into trouble this emergency fund for supplies would be absolutely necessary. Moreover it must be remembered that in emergencies it is not possible to get supplies promptly, or at a moderate cost. The idea of the Secretary is that supplies should be procured, I mean staple things, and carefully boxed and stored ready for anything that may turn up.

The CHAIRMAN. In the shape of provisions?

Colonel DENNY. No, sir. Equipment, hats, socks, blankets, shoes, picks, shovels, everything that is required in the field.

Mr. PADGETT. How long could you keep clothing and goods of that kind without deterioration from the moths?

General ELLIOTT. We could put them in the storehouse for ten years, as long as we keep them dry.

Mr. PADGETT. Would you not have trouble with moths and insects?

Colonel DENNY. Not if they were taken out and brushed carefully. In the Philippines the moths are bad, but the things can be kept in tin cases.

Mr. HOBSON. Do you regard that as important?

Colonel DENNY. Yes, sir; it is of the greatest possible importance.

The CHAIRMAN. The next item is: "Transportation and recruiting, Marine Corps," and there is an increase of \$50,000. What is the necessity for that?

Colonel DENNY. The necessity is that the cost of transportation is very much greater than it used to be.

Mr. OLCOTT. You mean the rate bill?

Colonel DENNY. That is to say, we can not get the same competition among railroads to-day as formerly. Formerly we used to invite bids and get competition and the lowest bidder usually got the contract. Nowadays they will not compete. They charge us exactly the same price they charge the public. If you send one, one hundred, or one thousand men it is just the same. We pay the same rate they charge the public. In addition we now get many recruits in the far West and Northwest. This means longer hauls than formerly when the recruits came chiefly from the East, and, of course, greater expense.

The CHAIRMAN. Kindly put in the hearing a statement of just how this money has been expended during the past fiscal year.

Colonel DENNY. Yes, sir.

Appropriation, "Transportation and recruiting, Marine Corps, 1907."

Posting and printing.....	\$14, 800
Rent of recruiting offices.....	14, 620
Examination of recruits.....	4, 806
Advertising for recruits in newspapers.....	19, 428
Transportation of officers and men.....	100, 216
Incidentals.....	2, 000
Balance unexpended.....	130
Total.....	156, 000

The CHAIRMAN. Do you need all of this estimate?

Colonel DENNY. Yes, sir. We have very carefully calculated the requirements.

The CHAIRMAN. The next item is: "For repairs of barracks, Marine Corps," and you are asking for an increase of \$10,000?

Colonel DENNY. That is due to the fact that our buildings are getting older and older each year and we are patching them up and trying to struggle along as best we can. The buildings at Portsmouth and New York are in bad shape. There is another item, the rent of the depot at San Francisco, that we have to pay out of this increase of \$10,000. This is \$7,200.

The CHAIRMAN. The next item is: "Forage, Marine Corps," and the estimate for next year is the same as the appropriation for the current year, but you have inserted some new language "and for stabling of public horses."

Colonel DENNY. That is owing to a decision of the Comptroller of the Treasury. Some time ago we asked the Comptroller if we could put our horse in a livery stable—the horse that hauls the mail wagon—and we were informed that there was no specific authority of law for it, but if it is necessary to do it at present to go ahead and to put it in the next estimates, and submit the matter to Congress with the recommendation that those new words appear in the appropriation act. The principle of the accounting officers is generally that public money can not be expended for labor or material unless specifically authorized by law. This item does not increase the appropriation.

The CHAIRMAN. What public horse?

Colonel DENNY. We have two horses which are used in the mail wagon and for other public purposes, such as hauling supplies, men's baggage, etc.

The CHAIRMAN. Is not that in the Quartermaster's Department?

Colonel DENNY. Yes, sir; but there is no public stable. In earlier days we had a stable at the marine barracks here. In the reconstruction of the barracks we had to tear down that stable and put in a barracks, and so there is no public stable there now.

The CHAIRMAN. Are you building a stable?

Colonel DENNY. No, sir. We have no ground on which to put it. We are keeping these horses at a livery stable at \$20 a month each.

Mr. BUTLER. This new language is to enable you to have some place to put the horse up at night?

Colonel DENNY. Yes, sir; he is busy all day.

The CHAIRMAN. In the next paragraph you have changed the words "hire" to "commutation." What is the significance of that change?

Colonel DENNY. Under the new law affecting the Army and relating to quarters the word "hire" is done away with and "commutation" is substituted in every instance.

The CHAIRMAN. That has been done this year for the first time?

Colonel DENNY. Yes, sir; the act was approved March 2 last.

The CHAIRMAN. And in conformity with that act you changed these words?

Colonel DENNY. Yes, sir; it is solely for that purpose.

The CHAIRMAN. Under this item, "Commutation of quarters," you are asking for an increase of \$8,500. What is the necessity for that?

Colonel DENNY. That same law, the act of March 3, 1907, increased the number of rooms that officers are entitled to. I have forgotten the number of officers affected, but I think all of them but second lieutenants.

General ELLIOTT. Everybody.

Colonel DENNY. A second lieutenant?

General ELLIOTT. No.

The CHAIRMAN. I wish you would put into the hearing a statement as to the increase in the rooms?

Colonel DENNY. Yes, sir.

Comparative statement showing the number of rooms allowed officers under the old and the new law.

	Old allow- ance.	New allow- ance (act, Mar. 2, 1907).
Major-general.....	6	9
Brigadier-general.....	5	8
Colonel.....	5	7
Lieutenant-colonel.....	4	6
Major.....	4	5
Captain.....	3	4
First lieutenant.....	2	3
Second lieutenant.....	2	2

The CHAIRMAN. The next item is, "Contingent, Marine Corps," and you have inserted language so as to include funeral expenses of officers. Did the Comptroller decide against you?

Colonel DENNY. No, sir; but on the general principle frequently enunciated by the Comptroller, public funds can not be expended for objects which are not specifically mentioned in the laws. No such object now appears in the law for marine officers. Under the law, officers of the Army who die on duty may be buried at public expense, and officers of the Navy dying abroad are allowed one month's sea pay for funeral expenses. The existing exception against marine officers is unjust, it is submitted. They should be on the same footing or a similar footing with officers of the Army and Navy, and also, in this particular, with the enlisted men of the corps. Based upon practical experience of the last ten years, the expense to the Government to bury marine officers would not exceed, in time of peace, \$500 annually.

Mr. ROBERTS. Have you had a ruling from the Auditor or Comptroller that a marine officer could not be buried out of this appropriation?

Colonel DENNY. No, sir; not on that particular point; but we know the general principle is that where there is an itemized appropriation anything not appearing therein—not being specifically mentioned—can not be paid for out of that appropriation.

Mr. ROBERTS. Of course you have marine officers die?

Colonel DENNY. Yes, sir.

Mr. ROBERTS. How were the burial expenses paid?

Colonel DENNY. At their own expense, or their families.

Mr. ROBERTS. That is something unique in the military service of the country?

Colonel DENNY. Yes, sir. There have been cases where officers have died abroad and the expenses were paid out of the amount they had on the paymaster's books, or their families were communicated with and they met the expense.

The CHAIRMAN. I notice that you have inserted the words "printing and binding" in this paragraph. That is new?

Colonel DENNY. Yes, sir. That is due to the new policy established in the Navy Department by the present Secretary, the effect of which is that hereafter the Marine Corps shall pay for its own printing and binding and not have the expenses charged to the Navy Department's account.

Mr. BUTLER. Has there been any deduction from the printing and binding allotment to the Navy Department?

Colonel DENNY. I do not know.

The CHAIRMAN. How was it paid in the Navy?

Colonel DENNY. I am not certain.

Mr. BUTLER. How much does the printing and binding amount to each year?

Colonel DENNY. Pretty close to \$30,000. The work to be done in the way of printing and binding has increased enormously in the last five years.

Mr. BUTLER. I know that.

Colonel DENNY. It has increased at least one-third in the Marine Corps.

Mr. ROBERTS. What is the occasion for the increase?

Colonel DENNY. Printing and binding for the recruiting service have been very material items, but generally the increase in the strength of the corps by Congress has added to this expense.

Mr. ROBERTS. You include the posters you put up on the walls?

Colonel DENNY. Yes, sir; everything.

Mr. ROBERTS. You include in that your advertisements in the local papers?

Colonel DENNY. No, sir; that expense is charged to the appropriation, "Contingent."

The CHAIRMAN. I notice that you have inserted in this paragraph the words, "purchase and maintenance of public vehicles mechanically propelled?"

Colonel DENNY. Some time ago we made up our minds that delivery wagons or mail wagons, also carts and trucks, propelled by gasoline or electricity would be a very desirable thing to have instead of horses, the horses being sick or lame part of the time and the machine being available most of the time.

Mr. LOUDENSLAGER. If this language was inserted in the bill, would you want the language in italics at the top of page 202?

Colonel DENNY. Yes, sir. We inquired into the matter and we found that if the delivery wagons were to transport the effects of the men here from the station to the barracks and from the barracks to the station, go for the mail, go to the Government Printing Office and other places where they have to go, and to have one horse at all times ready for that kind of work, we would have to have at least two, probably three, and we found the practice of the livery stables was to have two and preferably three, especially in the winter weather. We found from computations drawn up by experts that the cheapest manner of transportation to-day, all things considered, was by electricity or by gasoline, and we submitted the question to the Comptroller as to whether out of any available appropriations we could buy machines of that kind. He said, "No;" and again repeated the remark I have made, that in the absence of specific authority for the purchase of such a thing we could not purchase it. He suggested that the matter be submitted to Congress. Personally, I think that it is a very good thing; a cheap thing. Horses are expensive, unreliable, and can only do a certain amount of work in a day. The machine, if carefully run, is nearly always available and can run for an indefinite time.

Mr. BUTLER. How many do you propose to buy?

Colonel DENNY. One was all we had in mind just now.

Mr. BUTLER. A freight machine?

Colonel DENNY. For transportation generally around Washington, from the barracks to the Union Station, for men and their effects, and back; to the post-office; to the Government Printing Office; to the Capitol; in a word for general service in the way of hauling public supplies.

Mr. BUTLER. What we call a freight automobile?

Colonel DENNY. Very much like the ones Woodward & Lothrop have, and like Wanamaker, in Philadelphia, has.

The CHAIRMAN. What will be the cost?

Colonel DENNY. It depends whether it is electricity or gasoline. I think we can buy a good gasoline machine for \$1,000 or \$1,200; an electric machine would cost \$1,400 to \$1,600.

Mr. BUTLER. Have you an electric plant to charge the machine?

Colonel DENNY. We have not, but we can buy one for \$30, and the cost of the electricity a month will be between ten and twelve dollars, as against the maintenance of a horse at \$20 to \$25.

The CHAIRMAN. On page 204 of the bill the words "cooking stoves, ranges, stoves, and furnaces where there are no," are stricken out?

Colonel DENNY. I wrote you a letter about that. That is purely accidental, I fancy.

(The letter referred to is as follows:)

NAVY DEPARTMENT,
Washington, January 13, 1908.

SIR: I have the honor to inclose herewith for the information and consideration of the Committee on Naval Affairs, House of Representatives, a copy of a letter dated the 11th instant, from the quartermaster, United States Marine Corps, with indorsement thereon by the brigadier-general commandant, United States Marine Corps, calling attention to the omission of certain phraseology in the item, "Contingent, Marine Corps," page 204, lines 3 and 4 of draft No. 1 of the naval appropriation bill for

the fiscal year ending June 30, 1909. The recommendation of the brigadier-general commandant, that the words omitted be restored to the bill is approved.

Very respectfully,

V. H. METCALF,
Secretary.

HON. GEORGE EDMUND FOSS,
*Chairman, Committee on Naval Affairs,
House of Representatives, Washington, D. C.*

HEADQUARTERS UNITED STATES MARINE CORPS,
QUARTERMASTER'S OFFICE,
Washington, D. C., January 11, 1908.

SIR: I have the honor to invite your attention to the fact that in draft No. 1 of the naval appropriation act for the next fiscal year, a copy of which has been forwarded to this office, an omission appears under the head of "Contingent," page 204, lines 3 and 4, as follows:

"* * * cooking stoves, ranges, stoves, and furnaces where there are no * * *"

That is to say, such words are in the draft and a black line is printed across the same, indicating that they are to be left out of the bill. These words have been in the naval appropriation act for many years, and the articles named are required for the use of the Marine Corps each year. The omission was probably accidental. The words were incorporated in the estimates submitted by this office to you under date of October 7, 1907, for reference to the Secretary of the Navy.

2. It is requested that the words mentioned be restored to the draft and incorporated in the bill reported to the House of Representatives, the articles as stated being necessary for the health and comfort of the enlisted force of the Marine Corps.

3. It is recommended that the Secretary of the Navy be requested to refer this communication, or the substance thereof, to the chairman of the Committee on Naval Affairs of the House of Representatives.

Very respectfully,

F. L. DENNY,
Colonel, Quartermaster.

The BRIGADIER-GENERAL COMMANDANT,
United States Marine Corps Headquarters.

[First indorsement.]

HEADQUARTERS, U. S. MARINE CORPS,
Washington, D. C., January 11, 1908.

Respectfully referred to the Secretary of the Navy inviting attention to the attached letter from which it appears that the words "cooking stoves, ranges, stoves, and furnaces where there are no" have been omitted from the draft No. 1 of the naval appropriation act for the next fiscal year. It is very important to the Marine Corps, as explained by the quartermaster, that these words be inserted in the bill, and this office respectfully recommends that the necessary action be taken to have them restored to the bill.

G. F. ELLIOTT,
Brigadier-General Commandant.

The CHAIRMAN. The total of this item is increased from \$280,800 to \$330,800. Where does that increase come in—printing and binding, \$30,000?

Colonel DENNY. Yes, sir; and for the equipment and maintenance of the new posts I referred to a little while ago—New London, San Francisco, Washington, Guantanamo, Pensacola, Norfolk, Algiers, and Bremerton, which are in addition to expenses now to be met.

The CHAIRMAN. Can you furnish us with a statement showing the principal expenditures under this paragraph?

Colonel DENNY. Yes, sir; for last year.

Appropriation: "Contingent, Marine Corps, 1907."

Annual contracts for stationery, mess utensils for enlisted men, such as bowls, plates, spoons, knives, forks, tin cups, pans, pots, and ranges, pillows, sheets, beds, cots, mattresses, mattress covers, etc.....	\$47,785.00
Contracts for furniture, carpets, gas and electric light fixtures, heating apparatus, etc.....	14,420.00
Allotments, assistant quartermasters, Cavite, Manila, P. I.; Culebra, P. R.; Panama, Isthmian Canal Zone.....	22,560.00
Laundry, telegraph, freight, expressage, repairs and renewal plumbing, water and gas systems, and gas, water, electric light, extra-duty pay, office supplies, sanitary supplies, other incidentals, etc.....	195,945.00
Total appropriation.....	280,800.00

[No. 10.]

THE COMMITTEE ON NAVAL AFFAIRS.

Tuesday, January 21, 1908.

The committee this day met, Hon. George E. Foss in the chair.

**STATEMENT OF REAR-ADMIRAL WASHINGTON LEE CAPPS, CHIEF
CONSTRUCTOR, UNITED STATES NAVY.**

The CHAIRMAN. The first item is on page 160 of the bill, "Construction and repair of vessels: For preservation and completion of vessels on the stocks and in ordinary," etc., \$8,750,000. This is an increase of \$850,000. Will you please explain the necessity for the increase?

Admiral CAPPS. Of the increase, \$750,000 has been submitted to cover structural changes on the battle ships and armored cruisers, due to probable changes in turret ammunition hoists, these changes in ammunition hoists having for some time past been under consideration by the Bureau of Ordnance. The other \$100,000 is to provide for repairs, equipage, etc., for naval vessels loaned to the naval militias of the several States, the Department having directed the inclusion of such an amount in the annual estimates under this Bureau, a special naval board having reported that the repairs under cognizance of this Bureau to naval vessels loaned to the naval militias would amount to about \$100,000 per annum.

In this connection I would like to invite the attention of the committee to the fact that the general appropriation for the Bureau of Construction and Repair for the fiscal year ending June 30, 1901, was \$7,500,000; for 1902, \$7,000,000; for 1903, 1904, and 1905, \$8,000,000; for 1906, \$7,800,000; for 1907, \$7,900,000, and the same for 1908. So, despite the large increase in the number of large vessels placed in commission, and the necessary increase in cost for maintaining those vessels, the appropriations for such maintenance have remained substantially the same for the past seven years.

For some years past there has been a very great effort on the part of the Department, seconded by officers at navy-yards and those in command afloat, to limit repairs to ships to those absolutely necessary for military efficiency; but despite the effort for economy on the part of officers at navy-yards and of those in command afloat, it has been necessary for the Bureaus and the Department to make extensive reductions in the estimates as finally submitted for action. The reductions made by the Bureau of Construction and Repair in estimates and surveys for repairs of ships during the past year have been more than \$500,000, and yet the surveys and recommendations submitted were supposed to represent the absolute needs of the vessels. Careful scrutiny, however, has indicated in nearly all cases that reductions could be made without materially impairing the

value of the ship as a military weapon, although each ship may not have had installed the latest fittings which may have been incorporated in the most recent designs. I mention these facts in order that the committee may fully realize that there is, in the administration of the Department, a very definite and continuous effort to administer the affairs of the Navy in the most economical manner, consistent with the military efficiency of the fleet, and military efficiency must, of course, in all cases, be given precedence.

The CHAIRMAN. Can you give us your figures in arriving at this estimate?

Admiral CAPPS. As stated in previous hearings, it is wholly impossible to estimate in detail for the cost of maintenance of so complicated a structure as a ship. There are a great many contingencies that are wholly unforeseeable. But for many years past a very careful record has been kept of actual expenditures on all ships under repair and expenditures for all other purposes at navy-yards, naval stations, etc., and the estimates for the succeeding year are based largely on the actual experience of the preceding years.

I have had prepared a summarized statement of all expenditures under various classes for the fiscal year 1906-7, which is at the disposition of the committee. These expenditures have been subdivided under the various heads called for by the Navy regulations, and the statement covering the same will be attached to the hearing. (See Appendix No. 3.)

There has also been prepared a statement of expenditures at each navy-yard, under cognizance of the Bureau of Construction and Repair. This will also be attached to the hearing. (See Appendix No. 2.)

There has also been prepared a statement of expenditures for the first five months of the fiscal year 1907-8, which indicates a definite increase in cost of maintenance of the fleet. (See Appendix No. 1.)

I think the information contained in these appendixes will give the data desired by the committee in connection with the estimates, Construction and Repair, 1909.

The CHAIRMAN. We added a proviso last year: "That no part of this sum shall be applied to the repair of any other ship when the estimated cost of such repairs, to be appraised by a competent board of naval officers, shall exceed 20 per cent of the estimated cost, appraised in like manner, of a new ship of the same size and like material."

Admiral CAPPS. In reference to that proviso and the one following the Bureau has had prepared and submitted to the Department a list of all vessels which have come or probably will come under the limiting provisions contained in last year's naval appropriation bill.

The CHAIRMAN. Where is the list; was it in your report?

Admiral CAPPS. No. The list was submitted in a letter to the Department for action in connection with estimates under other Bureaus. I will attach copies of these letters to the hearing. (See Appendixes 4 and 5.) I invited especial attention in the letter to the Department to the fact that the estimates therein submitted for each ship were for the purpose of fulfilling the specific requirement of Congress, but that it did not call for an additional appropriation, since the total amount necessary for these repairs had already been included in the estimates as originally submitted.

The CHAIRMAN. Are there any ships that you think are worthy of repair whose estimated cost of repair is more than 20 per cent?

Admiral CAPPS. Yes, sir; the list was given in appendixes 4 and 5 above noted.

Mr. ROBERTS. The Admiral stated that the estimates for surveys of last year had been cut down in the Bureau \$400,000. Can you tell us along what lines the cut was made?

Admiral CAPPS. I will give you a list of the ships and the surveys and the amounts reduced. My recollection is that the reduction was in the neighborhood of \$500,000. (See Appendix No. 6.)

Mr. ROBERTS. I would like to know how you did it, whether you scaled them down pro rata.

Admiral CAPPS. No, sir. The most important reductions are usually those relating to disapproval of changes in the interior arrangements and fittings which may have been recommended by commanding officers, to bring their vessels up to date in comparison with those of more recent construction. For instance, a ship may have been in service for a great many years, and yet her latest commanding officer would believe it to be an excellent thing to rearrange quarters or crew spaces or storerooms, etc., or to add certain expensive fittings, possibly at a total cost of many thousand dollars. The commanding officer's recommendation would possibly also be approved by the commander in chief and the navy-yard authorities. The ship having served satisfactorily for many years, however, under conditions then existing, the Bureau has, in the interest of economy, disapproved such extra expenditures when not obviously justified by the benefit to be derived. Then, also, the natural desire to embody in an old design the latest requirements of new designs often stimulates officers attached to ships in commission to recommend radical changes. Where those changes materially affect the military efficiency of the ship and do not involve expenditures quite out of proportion to the good results to be obtained, they are almost invariably approved. If, however, such recommended changes are simply to make the ship a little more convenient or up to date or involve the installation of devices which have not been thoroughly tested, such items are disapproved.

Mr. ROBERTS. You stated that \$750,000 of the increase is for the purpose of changing ammunition hoists on some of the battle ships?

Admiral CAPPS. I stated that \$750,000 is the estimate submitted to cover structural work in connection with the installation of new turret ammunition hoists which have been under consideration by the Bureau of Ordnance for some time past.

Mr. ROBERTS. What change does that contemplate in the ammunition hoists on the ships?

Admiral CAPPS. An entirely new ammunition hoist, on a different plan from those previously installed.

Mr. ROBERTS. A broken, interrupted hoist?

Admiral CAPPS. What might be called and described as an "interrupted hoist" system.

Mr. ROBERTS. How many of the battle ships will require that change?

Admiral CAPPS. Every one now in commission or in reserve.

Mr. ROBERTS. Every one now in commission?

Admiral CAPPS. Yes, sir.

Mr. ROBERTS. Do you mean also to include ships like the *Iowa*, the *Massachusetts*, and the *Indiana*, those that are undergoing repairs?

Admiral CAPPS. Yes, sir; every one of them.

Mr. ROBERTS. Could you tell me from your memory the number?

Admiral CAPPS. Twenty-five battle ships and 12 armored cruisers.

Mr. ROBERTS. Of the ships under construction are there any on which this change will be made?

Admiral CAPPS. If this system is finally approved for all turret ships, of course there will be a great deal of development of plans before an entirely satisfactory arrangement can be devised; it will be made to apply also to the *Idaho*, *Mississippi*, and *New Hampshire*, which are now in course of construction and will soon be completed, and also to other ships building. But this \$750,000 will not be applicable to ships that are now building the cost of whose construction is chargeable to the appropriation "Increase of the Navy, Construction and Machinery." An "interrupted system" turret ammunition hoist was approved and contracted for in the case of the *New Hampshire* more than two years ago, but the contractor ultimately required such an excessive allowance of additional weight for his arrangement that the contract had to be canceled.

Mr. ROBERTS. I would like to ascertain what the cost of that change will be?

Admiral CAPPS. For the structural work and work of installation under the Bureau of Construction and Repair it will be approximately \$10,000 for each turret, but exact estimates can not be submitted until all plans are finally developed.

Mr. ROBERTS. What about the big ships—the *North Dakota* and *Delaware*?

Admiral CAPPS. Interrupted hoists have already been provided for in those vessels.

Mr. ROBERTS. In the plans and contracts?

Admiral CAPPS. Not in the contract. Provision was made for such a change in the contract, however, before the contract was let—before the bids were opened, in fact. It should not be forgotten that the advisability of installing an interrupted hoist system of turret ammunition supply has been under consideration for several years past, but there have been many practical difficulties in effecting such changes in vessels building as well as those in commission, and there are well-informed ordnance officers who are of the opinion that, so far as concerns "safety of operation," the hoists as now installed, with intermediate shutters between turret chamber and handling rooms, are as safe as will be the ammunition hoists of the "interrupted" type under the actual conditions of service.

Mr. ROBERTS. Can you describe in a brief way just what this proposed change will be, what change it makes in the construction of the ship?

Admiral CAPPS. Are you at all familiar with the turret ammunition hoist on battle ships?

Mr. ROBERTS. Only in a general way.

Admiral CAPPS. Briefly, then, it may be noted that the magazines are usually on the lowest platform deck in our ships of earlier design. In the newer ships they are more elevated. The magazines and shell rooms surround and open into a large central space which is called the "handling room." The magazines are, however, absolutely shut

off from this handling room by water-tight doors. These water-tight doors have scuttles in them for passing out the ammunition, and the scuttles have hinged flaps. From the turret proper to the handling room, and attached to and revolving with the turret, extends a long, curved rail structure, the lower portion being concentric with the axis of rotation of the turret. Upon this curved rail structure travels the ammunition car. As the ammunition car travels up from the handling room it curves toward the breech of the gun, so that when the ammunition car is at the top of the hoist, it lands close to and opposite the breech of the gun. All of our present turret ammunition hoist designs are on the "continuous hoist" principle. In recent years there have been interposed, between the turret chamber and the handling room, shutters which work automatically and close the opening through which the ammunition car passes, but of course there must still be small openings at the side through which the hoisting ropes pass.

The principal adverse criticism with respect to this system of ammunition hoists is that, on account of the great speed which is now aimed at in supplying the guns with ammunition, there is a tendency to remove ammunition from the magazine to the handling room well in advance of the arrival of the car in order to have it in readiness for loading on the ammunition car upon arrival at the foot of the hoist; also that ammunition will nearly always be in transit from the handling room to the turret, so that if any accident happens in the turret itself, due either to explosion originating in the turret, or to explosion created by a projectile entering the turret, burning grains of powder are apt to fall from the turret chamber down the hoist into the handling room, and in falling will ignite ammunition in transit or that possibly accumulated in the handling room. It should be noted, however, that there are stringent regulations governing the transfer of ammunition from magazine to handling room and also as to keeping the ammunition car below the turret floor until the breech of the gun is open and danger of ignition by flame from the breech has disappeared. But in the hurry of target practice, as well as action, accidents not due to the type of turret hoist have occurred in the past, and, despite all precautions, can not be regarded as wholly unavoidable in the future. It is well known, of course, that in our service, as well as in some foreign services, there have been very disastrous explosions in the turrets which had no relation whatever to the type of turret hoists. The causes of these explosions originated in the turret itself, and while there have been differences of opinion as to the exact cause of these accidents, there is no difference of opinion whatever as to the necessity of reducing their possibility to the greatest extent possible. Although, as stated above, there have been several disastrous explosions of powder in the turrets of United States battle ships, in only one case did burning powder grains do any damage in the handling room, which in this particular instance contained some powder charges ready for loading on the ammunition car. Subsequently, automatic shutters were fitted between the turret and handling room of this and all other turrets, so that a repetition of such an accident in the handling room is most improbable in view of past knowledge and subsequent fittings and precautions.

Mr. DAWSON. Were falling powder grains the cause of the accident on the *Georgia*?

Admiral CAPPS. No, sir; there was no explosion in the handling room of the *Georgia*. The explosion in that case was confined entirely to the turret chamber. It is impossible, of course, to state positively that magazine explosions can not be caused by explosions originating in the turret chamber, but in view of the fact that none of these deplorable turret accidents have caused any such explosion, a "magazine" explosion which would be a direct result of our present type of turret ammunition hoist is regarded as quite improbable by officers whose experience and knowledge in such matters is beyond question.

Mr. ROBERTS. Did they have the shutters that you spoke of where the ammunition goes into the handling room?

Admiral CAPPS. The water-tight doors of magazines were fitted with flaps, but there were no intermediate shutters between handling room and turret chamber.

Mr. ROBERTS. Were they designed to go into the ships prior to that time?

Admiral CAPPS. Designs had been considered and orders had been given for the installation of automatic shutters in the case of certain vessels building, but they had not been fitted on vessels of the fleet.

Mr. ROBERTS. Afterwards?

Admiral CAPPS. Yes, sir. It seems proper to note, however, that these shutters inevitably interfered with the attainment of the highest speed of which the ammunition hoists were capable, and it required a definite order of the Department to enforce their use. This is not intended as any reflection whatever upon those who operate turret mechanisms on board ship, but it does indicate the tremendous zeal of officers and men to accomplish speed even where risks may be involved. It must not be forgotten, however, that battles can not be often won without risk and loss of life, and despite the installation of every possible precautionary device, accidents must sometimes happen.

Mr. BATES. Is it speed in handling the ammunition which is so much sought for?

Admiral CAPPS. Yes, sir. It is my opinion, however, and I believe this opinion is shared by some very well-informed ordnance officers, that the speeds sought and obtained under target-practice conditions will not and can not prevail under battle conditions when a vessel is being fired at, and the rapidity of fire is thereby influenced as well as by other conditions which exist in battle.

Mr. ROBERTS. Would speed not be more apt to obtain in battle than in target practice?

Admiral CAPPS. I would say decidedly no. The rapidity of efficient fire in battle should not be expected to equal the rapidity of efficient fire attained in target practice, for many reasons, some of which have already been stated, and the supply of ammunition which can be carried is such as to entirely discourage rapid firing unless a large proportion of hits is being made. In this connection it is well worthy of note that the maximum number of shots fired from any 12-inch gun of the Japanese fleet during the first day's fighting at the battle of Tsushima has been assumed as only 75, while an authority who states that his information is most reliable,

says that 40 shots for each 12-inch gun was the average. As the first day's fighting lasted for more than five hours, the average rate of fire, even assuming the gun fire to have been interrupted for half the time by smoke, haze, or the maneuvering of the fleet, could not have exceeded one shot in two minutes on the basis of the maximum estimate of shots fired, and little more than one shot in four minutes if we accept as true information which is reported to be accurate. Recent target-practice rates for the 12-inch guns in the United States Navy have approached one shot in thirty seconds, or four times the maximum rate reported for the Japanese at Tsushima. As the possible rate of fire of the Japanese guns was at least one shot per minute, there were obviously good reasons for a comparatively slow rate of fire, reasons which will probably always exist except with the best possible weather and target-range conditions.

Mr. DAWSON. Has the proviso in the bill of last year with respect to limiting repairs to vessels to an amount not exceeding 20 per cent of the cost of a new vessel of same size and like material worked any hardship to the Department?

Admiral CAPPS. It has delayed the beginning of work on several vessels.

Mr. DAWSON. Do you think we could safely reduce it to 15 per cent, amend the proviso by saying that in no case shall the amount exceed 15 per cent?

Admiral CAPPS. I would say that a reduction of the present limitation of 20 per cent would be going distinctly in the wrong direction for ultimate efficiency.

The CHAIRMAN. The next item is "Seagoing tugs, \$300,000," on page 163 of the bill.

Admiral CAPPS. From time to time Congress has made special provision in the naval appropriation bill for seagoing tugs. Under the law they can be purchased or built under the general appropriation, but it is rarely that any portion of that appropriation can be utilized for that purpose in view of the many other demands upon it. There is a constant demand for additional tugs both on the Pacific and Atlantic coasts. In San Francisco Bay we are building a coaling station and there is no tug service yet provided for it. They are also short of tugs at Puget Sound. In fact, demands are being made for additional tugs in practically all the yards. The Department, therefore, considered that it was very modest in asking for only two.

The CHAIRMAN. Where is it proposed to place these tugs?

Admiral CAPPS. One at least will be on the Pacific coast.

Mr. ROBERTS. Will they be steel tugs?

Admiral CAPPS. Unquestionably.

Mr. ROBERTS. Where will they be built?

Admiral CAPPS. That is a question for future determination.

Mr. ROBERTS. Do you contemplate building them by contract, or in the yards?

Admiral CAPPS. Possibly by contract. We are building two tugs at the navy-yards now, and, as we all know, while we get excellent work, there is an increase in cost, for reasons which have been explained in previous hearings before the committee. If it is found to be to the interest of the Government, by facilitating the maintenance of our yard organizations, to do this work at navy-yards, the Department will doubtless consider the advisability of so building them, provided it can be done within the amount appropriated.

The CHAIRMAN. The next item is "Improvement of construction plant," Portsmouth, N. H., \$15,000?

Admiral CAPPS. All of these estimates are identically the same as last year.

Mr. BUTLER. Is it possible to make a reduction in them?

Admiral CAPPS. Here are the detailed estimates from the yards [exhibiting a package of papers], over three times what I have asked for.

Mr. PADGETT. Will there be any surplus the coming year in any of these appropriations of last year?

Admiral CAPPS. The "Increase of the Navy" appropriation and the "Construction plant" appropriation are continuous appropriations and are available until exhausted. The general appropriations can not be drawn upon after the 30th of June of each year—at least not for expenditures incurred after the close of the fiscal year. There will probably be a small surplus in the general appropriation this year. In fact, if we do not aim to have a balance, we are apt to have a deficit, since a half month's average expenditures under the general appropriations alone amounts to more than \$300,000, and unexpected demands must always be provided for.

Mr. PADGETT. I was speaking of these items of \$15,000 and \$20,000 on pages 163 and 164. They are the same as last year. In those specific items, did you have any surplus or deficiency?

Admiral CAPPS. There was no deficiency in those specific items, because we will not create it. As I explained last year, however, this appropriation for "repairs and improvement of plants" is really only for a part of the expenditure which must be made on the plants in order to keep them in anything like efficient condition, and the reason we have this additional appropriation is this: The main appropriation, for which an estimate of \$8,750,000 has been submitted, is available under the law for the general maintenance of all the yards and any repair work under cognizance of this Bureau performed in the yards; but this particular appropriation for "improvement of yard plants" can not be used for anything but "improvement of the plants." In other words, if we are hard pushed on our main appropriation, as we usually are, and can not afford to use much of it in improving the plant, this specific appropriation is invaluable.

Mr. PADGETT. So that these various items set out here do not correctly represent all the appropriations available for maintenance?

Admiral CAPPS. They do not represent the total amount necessary to be expended for such work or the total appropriations available.

The CHAIRMAN. We next come to the civil establishment, and I see there are no changes on pages 165, 166, 167, or 168.

Admiral CAPPS. I want to make just a few remarks on the subject of pay of clerical employees. There has been no recommendation for increases in the pay of the civil establishment for the very simple reason that the Department has been considering such increases as a general subject and the Bureau of Construction and Repair advised the Department that it would await the reports of the various boards that have been convened for that purpose. It appears that in the estimates under some of the other Bureaus there are various proposed increases in the civil establishment in certain departments of navy-yards. In some cases the clerks of other departments will, through these proposed increases, get 25 per cent more than those

in the department of Construction and Repair doing similar work' although, as a rule, the department of Construction and Repair has nearly as many mechanics and other employees as all other departments combined. Therefore, if an increase is made in the pay of clerks employed in one department, and those doing corresponding work of greater magnitude in another department at the same yard are neglected, a condition of extreme dissatisfaction will be created, resulting in inefficiency and possibly the loss of the services of very good men. So I beg that the committee (if it considers increases at all) will consider the general question of a uniform increase in pay—10 or 15 per cent, we will say—for the very few clerical employees who are paid at per annum rates at the navy-yards. Otherwise, I can assure you, it will have an exceedingly unfortunate effect, because men who are doing important work will feel that they have been discriminated against if men doing similar work in other and smaller departments receive increases in pay and they do not.

Mr. ROBERTS. The civil establishment, as set forth here, does not represent the total clerical force in your department?

Admiral CAPPS. Not at all; only a part.

Mr. ROBERTS. Your department is like the others; you have certain per diem men?

Admiral CAPPS. Most of them are per diem employees.

Mr. ROBERTS. Those are paid out of the lump sum?

Admiral CAPPS. Yes, sir; where a man has proved to be exceptionally valuable, and we are in danger of losing him, a moderate increase can be granted under the per diem system, but not under the per annum system.

Mr. ROBERTS. Do you approve of the present system of providing clerical assistance in the different bureaus, yours and the other bureaus, part civil establishment and part under the lump-sum appropriation?

Admiral CAPPS. That is a pretty complex question. As regards the efficiency of the service, I should prefer per diem compensation.

Mr. ROBERTS. For all your employees?

Admiral CAPPS. Yes, sir; simply because you could then reward your good men and let your less efficient men know that zeal and efficiency were qualities to be cultivated. More than that, the per annum pay at naval stations, as well as in the bureaus at Washington, carries with it a much longer leave of absence and additional leave in case of sickness, two very desirable privileges for the individual, but which sometimes seriously operate against the efficiency of the office, since most per annum employees desire and take the full thirty days of leave, while a few others are reported ill and take a portion, if not all, of this thirty days of sick leave. It is barely possible in some instances that if certain employees had per diem pay they would not find it necessary to go on so long a leave, and some of them would remain in better health. It is only fair to state, however, that, although the very large majority of per annum employees take their full thirty days' leave, only a comparatively small proportion draw upon this sick-leave allowance.

Mr. ROBERTS. Any change in the system should be to put them all on a per diem basis?

Admiral CAPPS. As previously stated, looking only to the most efficient working of the office, I incline to the per diem rather than

to the per annum basis for the greater portion of the office employees at naval stations and elsewhere. In view of the obvious advantages as to leave, etc., possessed by per annum employees, such places are considered more desirable by most employees, so that when transfers to the few per annum places are made, the best men are usually selected for such transfer. While both the per annum and per diem employees are under civil-service rules, the per annum man feels that his position is much more secure, and, as I say, he gets his thirty days' annual leave and thirty days' sick leave if such should be necessary.

Mr. ROBERTS. Your per diem men are under the civil service?

Admiral CAPPS. Yes, sir; but then they are really employed only from day to day, and their services can be discontinued at any time. Just as in civil life, a man paid an annual salary feels much more secure than if he is paid by the day.

Mr. ROBERTS. I notice that the language "and no other fund appropriated by this act shall be used in payment for such service," is stricken out. What was the reason for that?

Admiral CAPPS. I believe it was because Congress intended specifically to provide that certain classes of employees should be paid out of other funds, although it was subsequently determined otherwise.

Mr. ROBERTS. If I am not mistaken, that language was inserted on the floor by the Appropriations Committee.

Admiral CAPPS. There was placed at the end of the appropriation bill a general clause, you remember.

The CHAIRMAN. Here is the clause: "That no part of any sum appropriated by this act shall be used for any expense of the Navy Department at Washington, unless specific authority be given for such expenditure."

Mr. ROBERTS. That is a different proposition.

Admiral CAPPS. If you should reinsert the clause that is stricken out we could not pay a large number of our employees unless other specific provision was made for them. Congress has specifically provided that a certain class of drafting and clerical service can be paid for out of "Increase of the Navy," and such a prohibitive clause as that under consideration would revoke the previous authority and leave certain employees entirely without provision for pay.

Mr. ROBERTS. That is the general law.

Admiral CAPPS. But this says that no other fund shall be used in payment of such services. This would shut out everything.

Mr. ROBERTS. That is the very point I am getting at.

Admiral CAPPS. We were directed to put in a statement of the amounts paid out of the lump-sum appropriations for clerical and drafting services, etc. That is contained in the annual reports of bureaus and is doubtless before Congress. I do not know, of course, what use will be made of it. If the lump sum is provided elsewhere for the pay of clerical employees, you can insert this clause. If, however, you do not make provision in some way for the payment of employees who are now being paid out of the lump-sum appropriation and then insert this clause in the naval appropriation bill, we will have to discharge many necessary employees. In other words, if this clause is put in, there must be some provision made for the payment of clerical and drafting employees who are now paid from the lump appropriations.

Mr. PADGETT. Taking the general average through a series of years, what percentage of the thirty days' sick leave is used by the employees?

Admiral CAPPS. I regret that I can not answer your question offhand. So far as relates to employees in the bureaus at Washington, I could easily obtain the information. But to obtain similar information from all the navy-yards would require some time.

The CHAIRMAN. As I understand it, the per diem employees get two weeks' leave.

Admiral CAPPS. Fifteen days.

Mr. ROBERTS. That is not sick leave?

Admiral CAPPS. No, sir; no sick leave, but fifteen days of ordinary leave with pay. The per annum employee gets thirty days of sick leave if he is sick and files a doctor's certificate.

Mr. PADGETT. I want to get some idea of how much of the sick leave is used.

Admiral CAPPS. A statement giving the information could be prepared for you, but will require some time to obtain reports from the various yards.

Mr. ROBERTS. There is a difference between the sick leave of the employees here in the Department and those in the yards? Do they not get the sick leave here practically as a matter of right, while in the yards they only get it by permission from the Department; it is not a matter of right in the yards?

Admiral CAPPS. In order that the committee may be fully informed as to the method of granting leave at the Department, there will be attached to the hearing copies of Departmental Order No. 21 of November 8, 1898, and Navy-Yard Order No. 198 of March 20, 1901, covering this subject. (See Appendices Nos. 12 and 13.)

Mr. ROBERTS. It can only be granted by the Department here?

Admiral CAPPS. Yes, sir; but they are entitled to it in the same manner as the people in Washington.

Mr. ROBERTS. Only as a matter of humanity or courtesy?

Admiral CAPPS. No, sir; not courtesy, but by authority.

Mr. ROBERTS. But when an application for sick leave comes from one of the yards the Secretary is not obliged to O. K. the application, he can turn it down if he wishes?

Admiral CAPPS. He can turn down similar requests from those employed in Washington, if he sees fit, or if he is satisfied that the conditions warrant it.

Mr. ROBERTS. This sick-leave matter is pretty well safeguarded?

Admiral CAPPS. It is safeguarded to the extent that the applicant must have a doctor's certificate and the responsible official granting the leave must be satisfied as to the necessity therefor.

Mr. ROBERTS. The officers at navy-yards have to write to the Secretary at Washington for leave?

Admiral CAPPS. Yes, when for more than a week. For amounts of a week, or less, the commandant has authority to grant leave.

Mr. OLCOTT. You spoke of getting doctors' certificates in the case of those applying for sick leave and the possibility of their not always being reliable. Would it not be a practicable thing to have the surgeons of the Navy make the examination and furnish the certificate?

Admiral CAPPS. I should say that examinations by naval medical officers would not be a practicable proposition, with the present limited number of medical officers available for duty. I would also like to

add that some of the questions appear to indicate that under present conditions sick leave is abused. I should regret very much, even if inadvertently, to convey that impression. The number of employees now, however, is very small, but if you make all per diem employees per annum employees, there will be a very large number, and there will be different conditions to deal with. That is the point.

The CHAIRMAN. On page 210 of the bill is the item, "Construction and Machinery: On account of hulls and outfits of vessels and steam machinery of vessels heretofore authorized, \$9,832,962." Have you a statement in regard to this estimate?

Admiral CAPPS. I have a table showing the amount we expect to expend during the next fiscal year on each vessel in course of construction and also the amount which will probably be expended during the present fiscal year, also statement showing conditions of vessels under construction on January 1, 1908. (See Appendixes Nos. 7, 8, and 9.)

The CHAIRMAN. That applies to new ships?

Admiral CAPPS. To all ships now authorized.

The CHAIRMAN. Will this complete the ships?

Admiral CAPPS. No, sir. I have prepared a table indicating the amount that will probably be required during each year of the period of construction of ships now building and the total amount necessary to complete vessels so far authorized, but it must always be borne in mind that this estimate does not include and can not include any provision for such ships as Congress may authorize at this session. That is something which is frequently lost sight of. (See Appendix No. 10.)

Mr. BUTLER. I notice that the estimate for the next year is not as large as the appropriation for this year, but there is a reduction of between two and three million dollars. Is that because of the completion of certain ships?

Admiral CAPPS. Quite so; exactly.

Mr. BUTLER. We have not, at this time, as many ships under construction as we have had heretofore?

Admiral CAPPS. No.

Mr. ROBERTS. You were just discussing "Construction and Machinery." I notice that appropriation covers steam engineering. Is there any prorating of this total between your Bureau and Steam Engineering?

Admiral CAPPS. That information is contained in a letter which I will attach to the hearing, if it is desired. (See Appendix No. 10.)

Mr. ROBERTS. This is a joint appropriation?

Admiral CAPPS. Yes, sir.

Mr. ROBERTS. The Secretary makes that pro rata allotment?

Admiral CAPPS. The pro rating is made before we submit the estimate.

Mr. ROBERTS. That is settled by the Secretary?

Admiral CAPPS. No, by the Chiefs of Bureaus of Construction and Repair and Steam Engineering, and subsequently approved by the Secretary. Then, as I explained last year, this appropriation is available for the discharge of all obligations under "Increase of the Navy; construction and machinery," as long as any of it remains.

Mr. ROBERTS. It is available for new construction, but not in the way of repairs?

Admiral CAPPS. No, sir; only for new vessels under construction.

APPENDIX No. 1.

Statement showing expenditures from appropriation "Construction and Repair, 1908," from July 1 to November 30, 1907.

	Allowed for labor.	Requisitions for material.	Total.
Prior to July 1, 1907.....		\$155,354.05	\$155,354.05
July, 1907.....	\$470,492.66	106,583.35	577,075.91
August, 1907.....	464,139.04	52,369.31	516,508.35
September, 1907.....	437,647.00	47,164.88	484,811.88
October, 1907.....	477,821.14	102,661.00	580,482.14
November, 1907.....	657,057.10	85,251.78	742,308.88
	2,507,156.84	549,384.37	3,056,541.21
Less balance unexpended at navy-yards Nov. 30, 1907.....	37,500.00		
Less difference between estimated and actual cost on requisitions for material.....		39,963.01	
		509,421.36	
Naval supply fund, material drawn from store for use of Construction and Repair at navy-yards and stations.....		533,771.56	
	2,469,656.84	1,043,192.92	3,512,849.76
Naval supply fund for ships (as reported for July and August and estimated for September, October, and November).....			124,535.86
Foreign bills (as reported and estimated for July, August, September, October, and November).....			75,000.00
Miscellaneous (advertising, telegrams, expressage, etc.).....			262.17
Total.....			3,712,647.49
Appropriation "Construction and Repair, 1908".....			7,900,000.00
Expended, etc., as above to Dec. 1, 1907.....		3,712,647.49	
Less seven-twelfths of requisitions approved prior to July 1, 1907.....	90,622.00		
Less work for other Executive Departments.....	121,935.09		
		212,557.09	
			3,500,089.80
Available balance Dec. 1, 1907.....			4,399,910.20
Average monthly expenditure for five months ending Nov. 30, 1907.....			700,017.96
Average monthly expenditure for seven months to June 30, 1908 (possibly without exceeding appropriation).....			628,558.00

Monthly allotment by division of total appropriation into 12 parts, \$658,333.33 (Department authorized such increase in the monthly allotment of funds as would be absolutely necessary to complete the fire control and other work authorized by Department). (945-A. 124.)

APPENDIX No. 2.

Statement of expenditures at United States navy yards and stations from appropriation "Construction and Repair" for the fiscal year ended June 30, 1907.

Navy yard or station.	Labor.	Material.	Total.
Portsmouth.....	\$294,998.47	\$152,217.22	\$447,215.69
Boston.....	639,052.93	298,202.82	937,255.75
New York.....	1,166,111.28	609,661.92	1,775,773.20
League Island.....	330,736.15	149,794.95	480,531.10
Washington.....	99,491.35	33,894.25	133,385.60
Norfolk.....	657,369.25	302,886.08	960,255.33
Pensacola.....	183,930.82	75,226.80	259,157.62
Mare Island.....	477,413.96	311,174.03	788,587.99
Puget Sound.....	189,704.98	73,614.35	263,319.33
Cavite.....	329,150.54	266,050.53	595,201.07
Naval training station.....	3,771.12		3,771.12
Naval torpedo station.....	4,293.91	937.73	5,231.64
Port Royal.....	1,755.63	1,479.30	3,234.93
Charleston.....	14,951.07	35,888.70	50,839.77
Key West.....	4,706.58	1,285.60	5,992.18
New Orleans.....	15,906.79	1,725.27	17,632.06
San Juan.....	1,260.18	3,195.14	4,455.32
Guantanamo.....	18,584.83	7,881.73	26,466.56
Tutulla.....	73.99	3.37	77.36
Training station, San Francisco, Guam, Hawaii, and Brad- ford.....		6,944.82	6,944.82
Total.....	4,433,202.83	2,331,974.61	6,765,267.44
BUREAU EXPENDITURES.			
Open contract, services (labor and material) rendered by outside parties entirely, such as supplying and installation of proprietary articles or other material of special manu- facture, when such method of supply and installation is advantageous to the Govern- ment; also telephone, telegraph, and other miscellaneous services.....			46,206.89
Issues from naval supply fund to vessels in commission and to small stations involving direct charge to appropriation for construction and repairs.....			302,746.37
Public bills, expenditures on vessels in commission authorized by commanding officers in payment of work under cognizance of Bureau of Construction and Repair (not in- cluding Cavite).....			101,254.00
Estimated amount required to meet outstanding obligations for material contracted for and not delivered or for which bills have not been received.....			253,290.00
Stationery, drafting supplies, etc., purchased for Bureau.....			3,531.61
Advertising, telegraph services, expressage, etc., for Bureau.....			1,271.44
			7,473,567.76
Expended for labor and material at navy-yards and stations for work for other Execu- tive Departments for which Construction and Repair appropriation will be subsequently reimbursed:			
Labor.....	\$172,875.00		
Material.....	84,977.03		
			257,852.03
Total.....			7,731,419.78

APPENDIX No. 3.

Statement of expenditures under appropriation "Construction and Repair," from July 1 1906, to June 30, 1907.

[This statement is prepared from data taken from the monthly returns of expenditures sent direct to this Bureau. It will be noted that the titles of charges, as specified in the Navy Regulations, are given, a brief description of the objects of charge under these titles being added thereto.]

	Labor.	Material.	Total.
Titles D and P, repairs to such integral parts of a ship, ordinarily not transferable fixtures, as were objects of direct charge to the hull of the ship, under title A, including expenditures for additions, improvements, and alterations in the original construction and arrangements; also repairs made at navy-yards to articles on board ships in commission and originally chargeable to Title B.....	\$2,214,039.15	\$862,326.11	\$3,076,365.26
Titles E and F include charges to stations on account of fixed and movable property, such as dry and other docks, wharves, store houses, ship houses, machine shops, etc., also movable property such as derricks, sheers, scows, cranes, pile drivers, and tugs not borne upon the Naval Register, tenders, lighters, boats, etc., not belonging to a receiving or other ship, but pertaining to the station proper, etc.; cost of machinery plant for producing or transmitting power, including engines, shafting, boilers and appurtenances; machinery and machine tools for manufacturing purposes.....	227,337.32	394,049.76	621,387.08
Title G, general maintenance, includes cost of upkeep of all yard craft, tools, machinery, appliances, etc., noted under Titles E and F; also fuel, and hand tools used in general shops, etc.; also care and preservation of all vessels not in commission.....	1,061,398.58	314,675.60	1,376,074.18
Title N and so much of Title V as does not cover holidays; title N includes expenditures for completed models of ships and experimental work in general; Title V comprises miscellaneous expenditures for advertising, telegraphing, telephoning, printing, photographing, and express charges, drawing materials, etc.....	123,368.96	29,780.22	153,149.18
Title V: Payments on account of leave and holidays, in accordance with statute law, no work being given in return therefor.....	364,808.24		364,808.24
Title Z embraces the cost of all articles manufactured by the Government for the naval establishment and delivered to general storekeepers for issue.....	442,340.58	731,142.62	1,173,483.50
Outfits and stores issued by general storekeepers direct from naval supply fund to vessels in commission.....		302,746.37	302,746.37
	4,433,292.83	2,634,720.98	7,068,013.81
Requisitions for services rendered and miscellaneous.....			46,206.89
Expenditures for repairs, supplies, etc., to vessels in commission away from the navy-yards.....			101,254.00
Stationery, drafting supplies, advertising, telegraph services, expressage, etc., for Bureau.....			4,808.05
Total as shown on records of Bureau of Construction and Repair.....			7,220,277.75
Outstanding obligations and unreported expenditures (estimated).....			253,200.00
			7,473,567.75
Expended at navy-yards and stations for other executive departments for which construction and repair appropriation will be subsequently reimbursed....			257,852.03
Total.....			7,731,419.78

APPENDIX No. 4.

DEPARTMENT OF THE NAVY,
BUREAU OF CONSTRUCTION AND REPAIR,
Washington, D. C., January 11, 1908.

SIR: 1. Referring to the provisions of the naval appropriation act for the fiscal year 1908, that the Secretary of the Navy shall report to Congress the number of vessels and their names, upon which any repairs or changes are proposed, which in any case shall amount to more than \$200,000, the extent of such proposed repairs and changes, and the amounts estimated to be needed for same on each vessel, the Bureau has the honor to state that the following vessels will probably require general overhauling during the fiscal year ending June 30, 1909. In each case a brief statement of the character of the work involved, and the estimated total expenditure under this Bureau only, is given:

<i>Brooklyn</i> .—General overhauling; rearrangement of magazines and ammunition hoists in connection with the fitting of new intermediate battery; fitting fire control system; modernization of turrets in accordance with present requirements. Estimated cost.....	\$275, 000
<i>San Francisco</i> .—General overhauling; necessary work for converting into a ship for laying mines; work in connection with installation of new boilers; miscellaneous improvements of moderate cost. Estimated cost.....	200, 000
<i>Baltimore</i> .—General overhauling; necessary work for converting into a ship for laying mines; work in connection with installation of new boilers; miscellaneous improvements of moderate cost. Estimated cost.....	200, 000
<i>Alabama</i> .—General overhauling; work in connection with changes in battery and magazines to bring them into accord with present practice; installation of ammunition hoists and other turret fittings in accordance with present requirements; miscellaneous alterations and improvements of moderate cost. This vessel was originally commissioned October 16, 1900, and has been continuously in commission since that date, without any general overhauling. The vessel is now provided with a modern fire control system. Estimated cost.....	350, 000
<i>Illinois</i> .—General overhauling; work in connection with change in battery and magazines to bring them into accord with present practice; installing ammunition hoists and other turret fittings in accordance with present requirements; miscellaneous alterations and improvements of moderate cost. This vessel was originally commissioned September 16, 1901, and has been continuously in commission since that date without any general overhauling. The vessel is now provided with a modern fire control system. Estimated cost.....	350, 000
<i>Iowa</i> .—General overhauling; work in connection with changes in battery and magazines to bring them into accord with present practice; installing a modern system for fire control, also ammunition hoists and other turret fittings in accordance with present requirements; miscellaneous alterations and improvements of moderate cost. This vessel was originally commissioned June 16, 1897, and was given a general overhauling of very moderate extent in 1903, being recommissioned December 23, 1903, since which time she has had no general overhauling. Estimated cost.....	350, 000
<i>Kearsarge</i> .—General overhauling; work in connection with changes in battery and magazines to bring them into accord with present practice; installing ammunition hoists and other turret fittings in accordance with present requirements; miscellaneous alterations and improvements of moderate cost. This vessel was originally commissioned February 20, 1900, and has been continuously in commission since that time, without any general overhauling. The vessel is now provided with a modern fire control system. Estimated cost.....	350, 000
<i>Kentucky</i> .—General overhauling; work in connection with changes in battery and magazines to bring them into accord with present practice; installing ammunition hoists and other turret fittings in accordance with present requirements; miscellaneous alterations and improvements of moderate cost. This vessel was originally commissioned May 15, 1900, and has been continuously in commission since that time. In 1904 she was given a general overhauling at very moderate expenditure, since which time she has had no general overhauling. The vessel is now provided with a modern fire control system. Estimated cost.....	350, 000

2. The following vessels will require repairs which, in the aggregate, under all bureaus, will exceed 20 per cent of the total value of the vessel, and should, therefore, be authorized by Congress:

<i>Adder</i> .—General overhauling; installing the latest types of adjusting and torpedo operating devices; renewing piping; stiffening tanks to insure safety of the vessel at great depths; installing the latest type of periscopes; work in connection with installing new storage batteries. Work on this vessel was authorized by the Department's indorsement of October 15, 1906, and the necessary material has been purchased, but practically no work has been performed. Estimated cost.....	\$24, 500
<i>Bennington</i> .—General overhauling and minor improvements. Work on this vessel was authorized by the Department's indorsement of May 15, 1906, but practically no work has been done as yet. Estimated cost.....	75, 000
<i>Grampus</i> .—General overhauling; installing latest type of adjusting and torpedo operating devices; renewing piping; stiffening tanks to insure safety of vessel at great depths; installing new type of periscopes; work in connection with installation of new storage batteries. Work on this vessel was authorized by the Department's indorsement of October 15, 1906, and the necessary material has been purchased, but practically no work has been performed. Estimated cost.....	33, 500
<i>Moccasin</i> .—General overhauling; installing latest type of adjusting and torpedo operating devices; renewing piping; stiffening tanks to insure safety of vessel at great depths; installing the latest type of periscopes; work in connection with installing new storage batteries. Work on this vessel was authorized by the Department's indorsement of October 15, 1906, and the necessary material has been purchased, but practically no work has been performed. Estimated cost.....	24, 500
<i>Pike</i> .—General overhauling; installing latest type of adjusting and torpedo operating devices; renewing piping; stiffening tanks to insure safety of vessel at great depths; installing new type of periscopes; work in connection with installation of new storage batteries. Work on this vessel was authorized by the Department's indorsement of October 15, 1906, and the necessary material has been purchased, but practically no work has been performed. Estimated cost.....	33, 500
<i>Paul Jones</i> .—General overhauling; minor improvements. Estimated cost..	25, 000

3. The estimates for the *Adder*, *Baltimore*, *Bennington*, *Grampus*, *Moccasin*, *Pike*, and *San Francisco* are based on surveys actually received, a moderate percentage being added to the totals to cover unforeseen contingencies, due to the fact that the installations are subject to modification in certain details as work progresses.

4. The *Brooklyn* and *Iowa* are not now in active service, but are in reserve. General surveys have been held, but the detailed estimates under the survey have not yet been received. The *Alabama*, *Illinois*, *Kearsarge* and *Kentucky* are still in commission and are with the fleet. They can not be surveyed until they are available for the purpose. The estimates for these last-named vessels, are, therefore, approximate, and are based on previous experience in the overhauling of similar vessels.

5. Attention is especially invited to the fact that the above noted estimates do not require additional appropriations over and above those already covered in the estimates submitted with the Bureau's letter No. 945-A. 121, of September 24, 1907. The estimates already submitted are sufficient to cover such work on the above noted vessels as can be undertaken during the fiscal year ending June 30, 1909, and the accompanying statement of probable expenditures is submitted in compliance with the specific requirement contained in the act making appropriations for the naval service for the fiscal year ending June 30, 1908.

Very respectfully,

W. L. CAPPS,
Chief Constructor, U. S. Navy,
Chief of Bureau.

The SECRETARY OF THE NAVY.

APPENDIX No. 5.

NAVY DEPARTMENT,
BUREAU OF CONSTRUCTION AND REPAIR,
Washington, D. C., January 16, 1908.

SIR: 1. Referring to the Bureau's letter, No. 2182-A 21; 945-A, of January 11, 1908, relative to vessels on which the estimated costs of repairs under all bureaus exceed \$200,000, or 20 per cent of the cost of a new vessel of similar design, the Bureau is informed that the Bureau of Steam Engineering has submitted estimates for new boilers for the *Nicholson*, *Narkeeta*, and *O'Brien*. As the work under this Bureau, in addition to that understood to be necessary for this purpose under the Bureau of Steam Engineering on the vessels named, will result in a total expenditure, under all bureaus, exceeding 20 per cent of the cost of new vessels of similar design, it is recommended that steps be taken by the Department to obtain the authority of Congress for expenditures as follows.]

<i>Nicholson</i> .—General overhauling; work in connection with installation of new boilers; work to bring vessel up to date as far as practicable. Estimated cost.....	\$25,000.
<i>O'Brien</i> .—General overhauling; work in connection with installation of new boilers; work to bring vessel up to date as far as practicable. Estimated cost.....	25,000.
<i>Narkeeta</i> .—General overhauling; work in connection with installation of new boilers. Estimated cost.....	24,000.

2. Attention is especially invited to the fact that the above-noted estimates do not require additional appropriations over and above those already covered in the estimates submitted with the Bureau's letter, No. 945-A 121, of September 24, 1907. The estimates already submitted are sufficient to cover such work on the above-noted vessels as can be undertaken during the fiscal year ending June 30, 1909, and the accompanying statement of probable expenditures is submitted in compliance with the specific requirement contained in the act making appropriations for the naval service for the fiscal year ending June 30, 1908.

Very respectfully,

W. L. CAPPS,
Chief Constructor, U. S. Navy, Chief of Bureau.

The SECRETARY OF THE NAVY.

APPENDIX No. 6.

The following estimates for work requested on various vessels during the fiscal year 1907 were specifically recommended to the Department for disapproval:

Vessel.	Date of Department's action.	Amount.	Vessel.	Date of Department's action.	Amount.
Abarenda.....	10- 3-06	\$7,890.00	Milwaukee.....	2-23-07	\$35.00
Alabama.....	11-21-06	8,260.00	Milwaukee.....	1-15-07	340.00
Alice.....	4- 5-07	78.00	Maine.....	4-24-07	3,750.00
Celtic.....	6-19-07	7,179.75	Minnesota.....	4-29-07	796.00
Colorado.....	7-13-06	7,395.00	Marietta.....	6-29-07	925.00
Cleveland.....	1-21-07	294.00	Maine.....	6-27-07	2,010.00
Cleveland.....	2- 9-07	55.00	Nina.....	1-25-07	275.00
Cleveland.....		2,850.00	Nashville.....	10- 9-06	2,703.00
Dupont.....	8-29-06	662.00	Olympia.....	10- 9-06	53,196.00
Denver.....	11-22-06	3,330.00	Pennsylvania.....	7-13-06	7,395.00
Denver.....	11-28-06	1,160.00	Porter.....	8-29-06	662.00
Denver.....	11-28-06	875.00	Potomac.....	7-20-06	2,344.00
Denver.....	12-27-06	1,986.00	Paducah.....	12-22-06	1,395.00
Denver.....	12-29-06	142.00	Paducah.....	12- 8-06	4,123.00
Denver.....	1-21-07	1,860.00	Philadelphia.....	2-25-07	890.00
Dubuque.....	12-10-06	250.00	Plunger.....	3-16-07	100.00
Florida.....	6-17-07	2,777.00	Prairie.....	6-14-07	9,527.00
Georgia.....	12-14-06	518.00	Rocket.....	4-16-07	906.00
Georgia.....	12-17-06	255.00	St. Louis.....	9- 8-06	169.00
Georgia.....	12-22-06	140.00	Sotoyomo.....	4- 2-07	225.00
Georgia.....	12-29-06	990.00	Tacoma.....	8-17-06	4,875.00
Glacier.....	12-13-06	2,220.00	Tennessee.....	3-29-07	892.00
Hist.....	1-17-07	3,297.00	Tennessee.....	6-26-07	2,680.00
Hopkins.....	5-29-07	282.00	Tennessee.....	1-26-07	2,148.00
Hull.....	5-31-07	18.00	Tennessee.....	2-23-07	390.00
Indiana.....	4-26-07	3,700.00	Tennessee.....	3- 1-07	275.00
Iwana.....	15-17-07	220.00	Tennessee.....	3-26-07	2,680.00
Indiana.....	4-19-07	5,936.00	Truxtun.....	11- 7-06	61.00
Illinois.....	4-22-07	409.00	Truxtun.....	5-31-07	443.50
Kearsarge.....	8-15-06	50,196.00	Uncas.....	11-22-06	112.00
Kansas.....	3-30-07	1,697.00	Vermont.....	6-11-07	300.00
Kentucky.....	11-21-06	250.00	Vermont.....	4-18-07	6,636.00
Kentucky.....	11-17-06	133.50	Vermont.....	4-20-07	359.00
Leonidas.....	3-28-07	506.00	Virginia.....	1- 5-07	182.00
Leonidas.....	3-29-07	620.00	Vermont.....	4-25-07	685.00
Louisiana.....	5-20-07	425.00	Vermont.....	4-24-07	1,109.00
Maine.....	11- 9-06	5,800.00	Vermont.....	4-30-07	234.00
Maine.....	8-23-06	940.00	Virginia.....	1-11-07	1,685.00
Maryland.....	7- 5-06	1,075.00	West Virginia.....	7- 6-06	585.00
Maryland.....	7- 2-06	1,280.00	West Virginia.....	7-13-06	3,935.00
Maryland.....	7-13-06	3,935.00	Whipple.....	11-15-06	555.00
Missouri.....	10-17-06	331.00	Whipple.....	5-20-07	777.00
Missouri.....	9- 5-06	4,518.00	Worden.....	5-29-07	645.00
Missouri.....	9- 4-06	1,816.00	Worden.....	11-14-06	507.00
Missouri.....	11-10-06	182.00	Yankton.....	11- 9-06	275.00
Maine.....	11- 9-06	5,800.00			
Milwaukee.....	1- 3-07	275.00	Total.....		269,659.75

In addition to the above many extensive alterations recommended by commanding officers and others were recommended for disapproval in advance of submission of detailed estimates on account of undesirability of making such extensive changes on vessels without commensurate increase in military efficiency. The total estimated cost for these items on the various vessels being more than \$250,000 and covering changes on—

Battle ships.—Alabama, Connecticut, Georgia, Illinois, Indiana, Iowa, Kansas, Kearsarge, Kentucky, Louisiana, Maine, Minnesota, Missouri, New Jersey, Ohio, Rhode Island, Vermont, Virginia, Colorado, Maryland, Pennsylvania, West Virginia, Tennessee, Washington, Brooklyn, Charleston, Milwaukee, St. Louis, Denver class (6 vessels).

Sixteen torpedo-boat destroyers; 36 torpedo boats; 7 submarines. Miscellaneous craft. Total of all estimates for work disapproved, \$519,659.75.

APPENDIX No. 7.

Estimated amount of expenditures on vessels under construction, heretofore authorized, for the fiscal year 1909, appropriation, "Increase of the Navy: Construction and machinery."

New Hampshire.....	\$70,000	Birmingham.....	\$40,000
South Carolina.....	1,501,285	Salem.....	86,206
Michigan.....	1,485,613	Vestal.....	174,908
Delaware.....	1,899,641	Prometheus.....	544,206
North Dakota.....	1,940,298	5 torpedo-boat destroyers (Nos.	
North Carolina.....	80,000	17 to 21).....	1,749,044
Montana.....	174,291		
Chester.....	87,470	Total.....	9,832,962

APPENDIX No. 8.

Estimated amount of expenditures on vessels under construction, heretofore authorized, for fiscal year 1908, appropriation, "Increase of the Navy: Construction and machinery."

Virginia.....	\$8,896.88	Gunboat No. 16.....	\$260,000.00
Nebraska.....	418,169.25	Mississippi.....	512,544.00
Georgia.....	10,540.63	Idaho.....	683,958.00
New Jersey.....	14,157.74	New Hampshire.....	1,413,310.00
Rhode Island.....	9,384.38	South Carolina.....	1,504,285.00
Connecticut.....	1,000.00	Michigan.....	1,520,613.00
Louisiana.....	128,000.10	Delaware.....	1,809,641.00
Vermont.....	141,396.03	North Dakota.....	1,850,298.00
Kansas.....	151,963.87	California.....	372,136.00
Minnesota.....	153,263.20	South Dakota.....	486,614.00
Pennsylvania.....	1,900.00	North Carolina.....	1,409,250.00
West Virginia.....	6,650.70	Montana.....	1,531,305.00
Maryland.....	11,593.23	Chester.....	532,289.00
Tennessee.....	10,910.61	Birmingham.....	667,828.00
Washington.....	125,787.00	Salem.....	631,272.00
Milwaukee.....	110,668.47	Vestal.....	1,024,636.00
Charleston.....	55,663.47	Prometheus.....	901,497.00
Florida.....	41,725.01	5 torpedo-boat destroyers.....	1,442,363.00
Colorado.....	1,900.00		
Dale.....	5,702.00	Grand total.....	19,963,112.00

APPENDIX No. 9.

NAVY DEPARTMENT,
BUREAU OF CONSTRUCTION AND REPAIR,
January 1, 1908.

Vessels under construction, United States Navy:

Name of vessel.	Speed— knots.	Building at—	Per cent of completion.	
			Dec. 1, 1907.	Jan. 1, 1908.
BATTLE SHIPS.				
Mississippi.....	17	Wm. Cramp & Sons.....	98.01	98.65
Idaho.....	17	Wm. Cramp & Sons.....	91.24	94.12
New Hampshire.....	18	New York Shipbuilding Co.....	93.10	95.30
South Carolina.....	18½	Wm. Cramp & Sons.....	31.68	33.76
Michigan.....	18½	New York Shipbuilding Co.....	33.50	37.90
Delaware.....	21	Newport News Shipbuilding Co.....	5.08	7.05
North Dakota.....	21	Fore River Shipbuilding Co.....	7.84	12.70
ARMORED CRUISERS.				
North Carolina.....	22	Newport News Shipbuilding Co.....	95.17	96.00
Montana.....	22	Newport News Shipbuilding Co.....	89.49	91.31
SCOUT CRUISERS.				
Chester.....	24	Bath Iron Works.....	94.00	95.15
Birmingham.....	24	Fore River Shipbuilding Co.....	91.88	93.71
Salem.....	24	Fore River Shipbuilding Co.....	90.29	92.09
TORPEDO-BOAT DESTROYERS.				
No. 17.....		Wm. Cramp & Sons.....		
No. 18.....		Wm. Cramp & Sons.....		
No. 19.....		New York Shipbuilding Co.....		3.40
No. 20.....		Bath Iron Works.....		
No. 21.....		Bath Iron Works.....		
SUBMARINE TORPEDO BOAT.				
Submarine torpedo boat No. 9.....		Fore River Shipbuilding Co.....	99.00	99.00
COLLIERS.				
Vestal.....		Navy-yard, New York.....	55.30	58.80
Prometheus.....		Navy-yard, Mare Island.....	19.60	22.04
TUGBOATS.				
Patapsco.....		Navy-yard, Portsmouth.....	31.00	35.00
Patuxent.....		Navy-yard, Norfolk.....	27.00	32.00

APPENDIX No. 10.

Appropriation: "Increase of the Navy, construction and machinery"—Estimated expenditures on vessels under construction in connection with estimate for amount required in fiscal year 1909.

Vessels.	Fiscal year 1908.			Fiscal year 1909.		
	Hull.	Machinery.	Total.	Hull.	Machinery.	Total.
Virginia.....	\$8,896.88					
Nebraska.....	418,169.25					
Georgia.....	10,540.63					
New Jersey.....	14,157.74					
Rhode Island.....	9,384.38					
Connecticut.....	1,000.00					
Louisiana.....	128,000.10					
Vermont.....	141,393.03					
Kansas.....	151,963.87					
Minnesota.....	153,263.20					
Pennsylvania.....	1,900.00					
West Virginia.....	6,650.70					
Colorado.....	1,900.00					
Maryland.....	11,533.23					
Tennessee.....	10,910.61					
Washington.....	125,787.00					
Milwaukee.....	110,668.47					
Charleston.....	55,663.47					
Florida.....	41,725.01					
Dale.....	5,702.00					
Gunboat No. 16.....	260,000.00		\$1,669,273			
Mississippi.....	430,534.00	\$82,010	512,544			
Idaho.....	583,958.00	100,000	683,958			
New Hampshire.....	1,281,310.00	132,000	1,413,310	\$70,000		\$70,000
South Carolina.....	1,104,285.00	400,000	1,504,285	1,104,285	\$397,000	1,501,285
Michigan.....	1,120,613.00	400,000	1,520,613	1,120,613	365,000	1,485,613
Delaware.....	1,309,641.00	500,000	1,809,641	1,309,641	500,000	1,809,641
North Dakota.....	1,350,298.00	500,000	1,850,298	1,440,298	500,000	1,940,298
California.....	241,816.00	130,320	372,136			
South Dakota.....	303,965.00	182,649	486,614			
North Carolina.....	1,157,509.00	251,741	1,409,250	80,000		80,000
Montana.....	1,831,305.00	200,000	1,531,305		94,291	174,291
Chester.....	284,822.00	247,467	532,289	87,470		87,470
Birmingham.....	461,782.00	206,066	667,828	40,000		40,000
Salem.....	411,272.00	220,000	631,272	74,273	11,933	86,206
Vestal.....	774,636.00	250,000	1,024,636	129,107	45,801	174,908
Prometheus.....	661,497.00	250,000	901,497	434,332	109,874	544,206
Five torpedo-boat destroyers.....	942,363.00	500,000	1,442,363	1,249,044	503,000	1,749,044
	15,410,859.00	4,552,253	19,963,112	7,309,063	2,523,899	9,832,962

* The previous column includes amounts required for both hull and machinery on ships preliminarily accepted prior to July 1, 1907 (except Gunboat No. 16).

Vessels.	Fiscal years 1910 and 1911.			Total.		Grand total.
	Hull.	Machinery.	Total.	Hull.	Machinery.	
Gunboat No. 16.....				\$1,669,273		\$1,669,273
Mississippi.....				430,534	\$82,010	512,544
Idaho.....				583,958	100,000	683,958
New Hampshire.....				1,351,310	132,000	1,483,310
South Carolina.....	\$806,191		\$806,191	3,014,761	797,000	3,811,761
Michigan.....	723,680		723,680	2,964,916	765,000	3,729,916
Delaware.....	1,499,640	\$780,000	2,279,640	4,208,922	1,780,000	5,988,922
North Dakota.....	1,422,772	780,000	2,202,772	4,213,368	1,780,000	5,993,368
California.....				241,816	130,320	372,136
South Dakota.....				303,965	182,649	486,614
North Carolina.....				1,237,509	251,741	1,489,250
Montana.....				1,411,305	294,291	1,705,596
Chester.....				372,292	247,467	619,759
Birmingham.....				501,782	206,066	707,828
Salem.....				485,545	231,933	717,478
Vestal.....				803,743	295,801	1,099,544
Prometheus.....				1,085,829	359,874	1,445,703
Five torpedo-boat destroyers.....	301,681	500,000	801,681	2,483,088	1,500,000	3,983,088
	4,753,974	2,060,000	6,813,974	27,473,896	9,136,182	36,610,048

APPENDIX No. 11.

NAVY DEPARTMENT,
Washington, D. C., July 9, 1907.

SIR: 1. We submit herewith joint estimate (see estimate sheet "D" and comparative statement herewith) of the amounts required to June 30, 1909, by the Bureau of Construction and Repair and the Bureau of Steam Engineering, under appropriation "Increase of the Navy, construction and machinery," for work on new vessels heretofore authorized by Congress:

Under Bureau of Construction and Repair:		
For fiscal year 1908.....	\$15,410,859	
For fiscal year 1909.....	7,309,063	
		\$22,719,922
Under Bureau of Steam Engineering:		
For fiscal year 1908.....	\$4,552,253	
For fiscal year 1909.....	2,523,899	
		7,075,152
Total estimate.....		29,796,074
Balance in the Treasury available to pay on the above July 1, 1907.....		19,963,112
Appropriation required for fiscal year 1909.....		9,832,962

2. This amount, \$9,832,962, is the estimated amount required to be appropriated under "Increase of the Navy, construction and machinery," for the fiscal year ending June 30, 1909, for work on new vessels heretofore authorized by Congress.

Very respectfully,

W. L. CAPPS,
Chief Constructor, U. S. Navy, Chief of Bureau.

C. W. RAE,
Engineer in Chief, U. S. Navy, Chief of Bureau.

The SECRETARY OF THE NAVY.

APPENDIX No. 12.

DEPARTMENTAL ORDER NO. 21.—LEAVES OF ABSENCE.

NAVY DEPARTMENT,
Washington, November 8, 1898.

The legislative appropriation act approved March 15, 1898, provides in section 7, as follows:

"Hereafter it shall be the duty of the heads of the several Executive Departments, in the interest of the public service, to require of all clerks and other employees, of whatever grade or class, in their respective Departments, not less than seven hours of labor each day, except Sundays and days declared public holidays by law or Executive order: *Provided*, That the heads of the Departments may, by special order, stating the reason, further extend the hours of any clerk or employee in their Departments, respectively; but in case of an extension it shall be without additional compensation; *Provided further*, That the head of any Department may grant thirty days' annual leave with pay in any one year to each clerk or employee: *And provided further*, That where some member of the immediate family of a clerk or employee is afflicted with a contagious disease and requires the care and attendance of such employee, or where his or her presence in the Department would jeopardize the health of fellow-clerks, and in exceptional and meritorious cases, where a clerk or employee is personally ill, and where to limit the annual leave to thirty days in any one calendar year would work peculiar hardship, it may be extended, in the discretion of the head of the Department, with pay, not exceeding thirty days in any one case or in any one calendar year.

"This section shall not be construed to mean that so long as a clerk or employee is borne upon the rolls of the Department in excess of the time herein provided for or granted that he or she shall be entitled to pay during the period of such excessive absence, but that the pay shall stop upon the expiration of the granted leave."

This provision became operative on the 15th of March, 1898, amending section 5 of the act of March 3, 1893. As it expressly excludes "Sundays and days declared public holidays by law or Executive order" from the labor time required of clerks and employees, it would seem that those days are not intended to be included in the leave therein authorized.

The deficiency appropriation act approved July 7, 1898, contains the following paragraph:

"Nothing contained in section seven of the act making appropriations for legislative, executive, and judicial expenses of the Government for the fiscal year eighteen hundred and ninety-nine, approved March fifteenth, eighteen hundred and ninety-eight, shall be construed to prevent the head of any Executive Department from granting thirty days' annual leave with pay in any one year to a clerk or employee, notwithstanding such clerk or employee may have had during such year not exceeding thirty days' leave with pay on account of sickness as provided in said section seven."

When the thirty days' leave with pay has been exhausted by any person an extension not exceeding thirty days in the calendar year may be granted in the discretion of the head of the Department upon any one of the following conditions:

I. Where some member of the immediate family of a clerk or employee is afflicted with a contagious disease and requires the care and attendance of such employee.

II. Where through exposure to contagious disease, whether in his own family or not, the employee's presence in the Department would jeopardize the health of fellow-clerks.

III. In exceptional and meritorious cases, where a clerk or employee is personally ill, and where to limit the annual leave to thirty days in any one year would work peculiar hardship.

Condition III is made up of a group of facts or circumstances which must combine to authorize the granting of leave on account of personal illness. The case must be (1) exceptional, (2) meritorious, and (3) such that a denial of the leave would work not ordinary but peculiar hardship. What will in this connection constitute an "exceptional" case, a "meritorious" case, and "peculiar hardship" can not be defined in any general rule, but must depend upon the exercise of a reasonable discretion in the consideration of the circumstances.

However, when an employee has been absent with pay forty days in a year for two years in succession, his case will not be considered "exceptional," and all absence granted over and above thirty days in the next or third successive year will, as a rule, be without pay.

No employee shall absent himself until his application for leave of absence on "Departmental Orders Form 1" is signed by the Secretary of the Navy or by his direction.

To carry out the above provisions, it is hereby ordered that—

The chief clerk of the Department is authorized to grant to each clerk or employee thirty days' annual leave with pay in any one year, provided the head of the Bureau or Office in which the applicant is employed approves of the application on "Departmental Orders Form 1" prior to its presentation to the chief clerk. This leave may be granted as needed or desired, subject to such rules as the head of the Bureau or Office deems essential to the orderly and efficient conduct of the public business.

The head of the Bureau shall carefully consider every application for an extension of leave with pay beyond thirty days, and, in the exercise of a sound discretion, shall certify to the Secretary such only as, in his opinion, ought to be granted. Such certificate should state on which of the three legal grounds the application is based, and should be accompanied with such certificates of health officers or physicians and such statements from the applicant or others as will satisfactorily establish the facts.

Sundays and days declared public holidays by law or Executive order will not be charged, except when included in a period of leave without pay.

Leave without pay is not to be considered as a right. It may be allowed on account of sickness when the regular leave has been exhausted, but it will be granted as a favor to the individual only when, in the opinion of the head of the Bureau, the public business will not suffer by the absence, and when reasonable cause is shown, such as important business or emergencies of a serious nature.

This order is applicable alike to all clerks and regular employees under the jurisdiction of this Department, irrespective of their place of service.

JOHN D. LONG, *Secretary*.

APPENDIX No. 13.

NAVY-YARD ORDER NO. 198—LEAVE OF ABSENCE AT NAVY-YARDS, NAVAL STATIONS, ETC.

NAVY DEPARTMENT,
March 20, 1901.

An act of Congress approved February 1, 1901, provides as follows:

"Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That each and every employee of the navy-yards, gun factories, naval stations, and arsenals of the United States Government be, and is hereby,

granted fifteen working days' leave of absence each year without forfeiture of pay during such leave: *Provided*, That it shall be lawful to allow pro rata leave only to those serving twelve consecutive months or more: *And provided further*, That in all cases the heads of divisions shall have discretion as to the time when the leave can best be allowed without detriment to the service, and that absence on account of sickness shall be deducted from the leave hereby granted."

1. Under the provisions of the above law commandants of navy-yards and naval stations may grant per diem employees, including those in the classified competitive service, as well as laborers and mechanics, fifteen days' leave of absence with pay each calendar year, provided the applicant has served during a period of twelve consecutive months or more immediately preceding the date of his application.

2. Applications by per diem employees in the classified service for leave of absence must be made on Navy-Yard Orders Form 31.

3. Applications by per diem laborers and mechanics for leave of absence with pay must be made on S. and A. Form 206C, but the application on said form must show that the applicant has served during a period of twelve consecutive months or more immediately preceding the date of his application.

4. Applications by per diem employees carried on the rolls of a yard or station who are detailed for duty at private shipbuilding or manufacturing establishments for leave of absence must be made on Navy-Yard Orders Form 31. Leave in such cases may be granted by the officer in charge of the office instead of by the commandant.

5. Applications by per annum employees for leave of absence must be made on Navy-Yard Orders Form 31.

6. All applications for leave of absence in excess of thirty days in any one calendar year, with or without pay, must be forwarded to the Department for its action.

7. When the thirty days' leave with pay has been exhausted by any per annum employee, an extension not exceeding thirty days in the calendar year may be granted, in the discretion of the Secretary of the Navy, upon any one of the following conditions:

I. Where some member of the immediate family of a per annum clerk or employee is afflicted with a contagious disease and requires the care and attendance of such employee.

II. Where through exposure to contagious disease, whether in his own family or not, the per annum employee's presence in the Department would jeopardize the health of fellow clerks.

III. In exceptional and meritorious cases, where a per annum clerk or employee is personally ill and where to limit the annual leave to thirty days in any one year would work peculiar hardship.

Condition III is made up of a group of facts or circumstances which must combine to authorize the granting of leave on account of personal illness. The case must be (1) exceptional, (2) meritorious, and (3) such that a denial of the leave would work not ordinary but peculiar hardship. What will in this connection constitute an "exceptional" case, a "meritorious" case, and "peculiar hardship" can not be defined in any general rule, but must depend upon the exercise of a reasonable discretion in the consideration of the circumstances.

However, when a per annum employee has been absent with pay forty days in a year for two years in succession, his case will not be considered "exceptional," and all absence granted over and above thirty days in the next or third successive year will as a rule be without pay.

The head of the Department or Office shall carefully consider every application for an extension of leave with pay beyond thirty days, and in the exercise of a sound discretion shall certify to the Secretary such only as, in his opinion, ought to be granted. Such certificate should state on which of the three grounds the application is based, and should be accompanied with such certificates of health officers or physicians and such statements from the applicant or others as will satisfactorily establish the facts.

8. Sundays and days declared public holidays by law or Executive order will not be charged except when included in a period of leave without pay.

9. An annual report on Navy-Yard Orders Form 32, "Record of leave of absence," covering all employees in the classified competitive service, shall be forwarded to the Department, through the usual official channels, not later than January 10 of each year.

JOHN D. LONG,
Secretary.

[No. 11.]

THE COMMITTEE ON NAVAL AFFAIRS.

Tuesday, January 21, 1908.

The Committee this day met, Hon. Geo. E. Foss in the chair.

**STATEMENT OF WASHINGTON LEE CAPPS, CHIEF CONSTRUCTOR
AND REAR-ADMIRAL, CHIEF BUREAU OF CONSTRUCTION AND
REPAIR—Continued.**

The CHAIRMAN. You have doubtless seen from time to time in the papers allegations of grave defects in vessels of the United States Navy, particularly as regards the location of the water-line armor, height of freeboard, etc. While many of these criticisms are obviously without any real foundation in fact, there has recently appeared in a monthly magazine an article entitled "The needs of the Navy" which purports to be based upon fact, and nothing but fact, the author stating that the alleged facts can be readily verified by reference to official documents and the opinion of practically all seagoing naval officers. The committee understands that you are preparing a statement as to the real facts covering the disputed points, but we would be glad to have you give us such information as you can with reference to these matters.

Admiral CAPPS. In the first place, I think that it would be advisable to give the committee a brief outline of the procedure followed in designing a battle ship. To begin with, it must be understood that the essential elements which must be provided for in any successful battle-ship design are seaworthiness and stability under all conditions; protection of stability by means of armor, etc.; protection of machinery, magazines, and gun emplacements; suitable armament, speed, coal endurance, etc. From the earliest days of war-ship design the relative degree of importance to be given to each of the qualities above noted has been different as viewed by different designers and others concerned. Therefore those who regard speed as perhaps the most important element are always dissatisfied if armor or armament is given precedence, and those who favor excessive batteries are dissatisfied if too much displacement is devoted to propelling machinery; and both battery and machinery devotees are dissatisfied if what they regard as an undue proportion of the available displacement is devoted to the protection of the ship's stability; and so on through the whole range of possible and probable combinations of the various elements which are essential to the development of a satisfactory battle-ship design. In other words, there is unavoidable conflict of

opinion among those whose experience and knowledge are worthy of greatest consideration as to what is the best compromise combination of qualities to be embodied in the design of a battle ship. Necessarily, then, the final development must always be a compromise based upon experience and the best information obtainable, and the naval constructor is compelled, in the end, to limit the development of any particular element to the actual weight and space which can be devoted to that purpose.

In view of the very erroneous opinions entertained by many as to the methods of developing war-ship designs in the United States Navy, the Secretary of the Navy recently authorized the chief constructor to incorporate in his annual report for 1907 a description of the procedure followed in preparing designs of naval vessels during the past ten years. The chief constructor accordingly set forth at some length in that document the exact procedure followed, and since, I presume, the members of the committee have already read this report, I shall do little more than allude to it in this hearing. Under the section of the chief constructor's report above alluded to there are paragraphs which fully met, in advance, some of the criticisms which have recently been given such wide circulation, though only casual allusion was made to other criticisms. Such criticism as indicated that the seagoing element of the Navy was not sufficiently consulted in determining the general military and seagoing characteristics of war ships was, however, most fully and completely dealt with, and it is believed that those who have read that portion of the chief constructor's last annual report dealing with this subject will have no possible difficulty in arriving at a true realization of the facts in the case. The comments of the chief constructor, above alluded to, will be found on pages 14 to 49 of the annual report of the Chief of the Bureau of Construction and Repair for the fiscal year ending June 30, 1907, so that I shall not detain the committee longer by giving consideration to that particular phase of the subject of war ship design.

Mr. HOBSON. Please state briefly the qualifications of naval constructors to know the seagoing necessities of a ship.

Admiral CAPPS. With your permission I will refer the committee to my last annual report for particulars of the method of recruiting and training members of the corps of naval constructors during the past twenty-eight years, these comments appearing on pages 52 to 55 of the "Report of the Chief of the Bureau of Construction and Repair for the fiscal year ending June 30, 1907." To reply briefly, however, to Mr. Hobson's question, I may state that the corps of naval constructors of the United States Navy is now composed entirely of graduates of the U. S. Naval Academy who have been selected, as described by several Secretaries of the Navy in their annual reports, on account of high academic standing and special attainments. Secretary of the Navy Tracy, in his annual report for 1892, made the following comments in describing the great benefit which has accrued to the Navy through the methods adopted by his predecessors in selecting officers for transfer to the corps of naval constructors. General Tracy reported as follows:

The Department, in referring to the extent and character of the work done by the Bureau of Construction in the rebuilding of the Navy, desires to call special attention to the important assistance rendered by the young constructors of the Navy. As far

back as 1879 it was wisely decided, in view of the great changes taking place in naval architecture, in which this country had borne no part, to select from the most promising graduates of the Naval Academy a few each year who could, under the liberal arrangements made by certain foreign governments, acquire a complete professional training in modern naval construction at the best schools in the world.

Eighty-five per cent of the maximum mark for the four years' course was fixed as the lowest limit for candidates for this special training. The students have been assigned to the various schools at Greenwich, Paris, and Glasgow and have had additional advantages for the observation of practical work of public and private establishments, which have shown the utmost desire to furnish all possible facilities to the United States constructors. The work performed by these students under the supervision of the naval attachés, as indicated by their standing at the institutions they have attended, has been in the highest degree successful. The small amount which the Government has expended in their education has been returned to it fifty-fold by the zeal, ability, and knowledge which they have brought to the service and which have contributed materially to the economy and perfection of design shown in the work.

Since 1892 other Secretaries have made special comment on the valuable services performed by the corps of naval constructors and of the desirability of continuing a method of selection which has produced such excellent results, and in his annual report for the last fiscal year Secretary Metcalf comments as follows concerning the corps of naval constructors:

While appreciating the excellent work done in all branches of the naval service, I am prompted by certain recent comment with respect to the method of preparing designs of naval vessels to emphasize my sincere appreciation of the work done by the highly trained corps of naval constructors. The officers composing this corps are chosen from the foremost members of their respective classes at the Naval Academy; they are sent to sea and are afterwards given a specialized course of study at home or abroad. I know of no body of men better equipped by thorough preliminary training for the duties devolving upon them.

The result of this admirable technical equipment is that many of these officers have been tempted by offers of higher remuneration than a career in the Navy holds to leave the service, and some former members of the corps are now engaged in the employ of private shipbuilding concerns in supervising the construction by contract of important vessels of the new Navy.

Peculiarly fitted as our ship designers are for the work they have in hand, we have, nevertheless, in the past made some mistakes; but these, when discovered, have been promptly rectified. Such is the history of naval construction under foreign governments as well as our own. We have no monopoly of errors in warship designs. On the whole, I believe that the members of the construction corps of the United States Navy have greater opportunity for keeping in touch with the requirements of the fleet and the views of seagoing officers than is possessed by any similar corps in any other navy.

The limited number of officers in the corps of naval constructors has made it quite impracticable, however, to assign such officers to duty with the fleet as frequently as the Department and the Chief of the Bureau of Construction and Repair might desire; but I have decided to approve the chief constructor's recommendations that not less than two officers of the construction corps accompany the battle-ship fleet and the torpedo-boat flotilla on their voyage from the Atlantic to the Pacific coast. The officers so detailed will be in a position to obtain and transmit to the Department, for the information of the technical bureaus concerned, valuable professional data with respect to the performance of the various types of ships composing the fleet under actual service, seagoing conditions, including target practice.

Many of the earlier selections of graduates of the Naval Academy for transfer to the construction corps were not made until such officers had had two or more years' service at sea subsequent to graduation from the Naval Academy, and for several years past such sea service, subsequent to graduation, has been regarded as essential before an officer can be considered eligible for assignment to a special course of instruction in naval architecture preliminary to transfer to the construction corps.

Until 1902, all officers transferred to the construction corps, with one single exception, were given a special course of instruction in naval architecture in either Great Britain, France, or Germany. Since 1902 they have been given a special three years' course in naval architecture at the Massachusetts Institute of Technology, this course having been specially arranged to meet the requirements of the Navy Department and for the exclusive benefit of officers destined for the corps of naval constructors of the United States Navy.

It will thus be seen that officers of the corps of naval constructors receive not only the most excellent training afforded by a full course at the Naval Academy, but prior to assignment to the corps have a substantial amount of service at sea, and subsequently receive the best possible technical training which the Government can provide; and, after from nine to ten years' service in the Navy, and the most complete preparation for their special work, they are ready to begin their active professional career as members of the corps of naval constructors. Thereafter their attention is entirely and continuously devoted to the highly specialized work of their corps. In due course they are assigned to duty as subordinate officers or heads of the department of construction and repair; also to duty in the Bureau of Construction and Repair in the Navy Department; also duty as superintending constructors or assistant superintending constructors of vessels being built under contract for the Navy; also membership on various technical boards, including the Board of Inspection and Survey, this last-named board being one especially authorized by law and having under its jurisdiction the trials and final acceptance of all vessels built for the Navy, also the periodic inspection of other vessels of the Navy. Naval constructors are also liable to assignment afloat, and although the limited number of officers in the construction corps has made it impracticable to assign such officers to sea duty as often as could be desired, there are three officers of the construction corps now on duty with the battle-ship fleet and torpedo-boat-destroyer flotilla.

It is therefore entirely evident that the range of duty and experience of the officers of the corps of naval constructors of the United States Navy are most unusual, and I believe it is no exaggeration to state that in no navy in the world have officers performing similar duties had such unusually complete and continuous experience, not only in the specialized technical work of "naval design," but also in actual experience as seagoing officers on ships of various types.

Mr. HOBSON. Please state how many years the present chief constructor has been at sea.

Admiral CAPPS. About three years and a half, not including the time spent at sea and valuable experience obtained concerning the performance of vessels under seagoing conditions while a member of the Board of Inspection and Survey.

To return to the consideration of designs of vessels in the United States Navy: As I said before, the general method of preparing designs has been fully set forth in the last annual report of the Bureau of Construction and Repair, and it has been clearly shown that the seagoing element has been given every consideration and has been afforded ample opportunity to express its opinions as to military features of our battle ships.

Those questions relating to certain features of war-ship design, which have come to the front most prominently during the last few months and which definitely affect the work of the Bureau of Construction and Repair, and which have been given first consideration in a recent magazine article, are *distribution of water-line armor, height of free board, and height of gun axes*. For the present, therefore, I shall confine my attention to those particular subjects.

As these are questions of the greatest importance in war-ship design and have always received most thorough and complete attention, not only in our own but in all important navies, I am going to refer at length to a historic discussion which took place in London about nineteen years ago in connection with the design of a battle ship which has since been regarded as a "typical design," since the free board of this vessel and water-line armor distribution (with such variations as were necessarily consequent under development in naval matériel) have been generally followed in all battle ships of the British navy up to the design of the *Dreadnought*; and even in the last-named vessel the increase in free board forward is a logical development based upon the great increase in length, the fineness of water lines, and corresponding decrease in buoyancy at extremities of vessel, developments which have been necessary in order to obtain such a great increase in armament and speed. It will be subsequently shown, however, that the Japanese, whose experience in naval warfare under modern conditions is certainly not excelled by that of any other nation, have been content to retain a moderate free board forward in their recently designed battle ships of great length and high speed.

In 1888 and 1889 the British Admiralty was subjected to especially severe criticism in relation to its shipbuilding programme, types of ships, etc., and the newspaper and other attacks were quite similar to those which have appeared recently in connection with the matériel of our own Navy. There was one marked difference, however, since, in the attack on the matériel of the British Navy the severest criticism came from the technical side, one of the most outspoken critics of the Admiralty at that time being a former director of naval construction. The questions of "water-line protection," "height of free-board," and other essential qualities of battle ships were earnestly discussed everywhere, and the comparatively low freeboard of the *Camperdown* and *Trafalgar* classes (vessels whose designs immediately preceded those then under consideration) were freely criticised in connection with criticism of the designs of the proposed new ships of the *Royal Sovereign* class. In preparing the designs of this class of battle ships, the then board of admiralty, which was composed of some of the most distinguished officers of the British navy, determined to go into the matter most thoroughly. The director of naval construction was therefore directed to prepare several alternative designs, embodying the various features which different groups of seagoing officers considered essential. After these "general" or "sketch" designs were prepared, the board of admiralty invited certain distinguished naval officers who had been in command of fleets and had recently returned from sea duty, also other prominent naval officers on duty in London, to view and discuss the plans, and everyone was given full opportunity to make such criticism as seemed appropriate. The final and practically unanimous result of all this

criticism was the adoption of a design from which ships of the *Royal Sovereign* class were subsequently built, the freeboard forward of these vessels being one complete deck height greater than that of the battle ships of the British navy which had immediately preceded them. The *Royal Sovereign* class had its four heavy guns mounted in two barbettes, one forward and one aft, with a broadside battery of ten 6-inch guns distributed on two decks. The axes of the highest turret guns were 25 feet above the water line; the axes of the lowest tier of broadside guns were 14 feet above the water line. The freeboard forward was 18 feet. All of the above-noted heights were from the water line of the vessel on the designed normal load displacement with only about 900 out of 1,800 tons of coal in the bunkers. An alternative design of battle ship was also proposed by the Admiralty, although not generally approved by the board of admiralty. The alternative design provided for *turrets* instead of *barbettes*, and had considerably less freeboard forward than the *Royal Sovereign*. Only one vessel of this type was subsequently built.

When the Admiralty designs had reached this stage, some idea of their characteristics became known to the public, and immediately severe attacks were made upon certain of their features, these critical articles being, in many instances, signed by those making them and appearing in the London Times. The director of naval construction requested and obtained the permission of the Admiralty to prepare a complete description of the proposed designs then under consideration, with profuse illustrations; this paper, with its diagrams, gave full information concerning the points at issue and was presented for discussion at the spring meeting of the Institution of Naval Architects in 1889. The Institution of Naval Architects is unquestionably the largest and most representative body of professional naval architects in the world; it has among its membership not only naval architects of all countries, but a large number of sea-going officers of British and other navies, and the papers of great technical value which are read and discussed at its meetings usually elicit thorough and valuable criticism from the best-known and most experienced experts. The unusually complete discussion of the *Royal Sovereign* designs, covering as it does the very points recently raised with respect to alleged defects in our own ships, is especially interesting. The *Royal Sovereign* is a vessel longer than any battle ship we have in the Atlantic Fleet to-day, with the exception of the *Virginia* and *Connecticut* classes, and is only slightly inferior in length to the *Virginia*. Her beam is also greater than that of any of the vessels of the Atlantic Fleet except the *Virginias* and *Connecticuts* and is only slightly less than the beam of those vessels. Her displacement is also greater than that of any of the vessels of the Atlantic Fleet except the *Virginias* and *Connecticuts* and is only slightly inferior to the displacement of the vessels of the *Virginia* class. Also, her speed of 17½ knots is only slightly inferior to that of battle ships of our own and other services which were designed during the dozen or more years immediately following the date of her design and was regarded as unusually high at that time. As previously stated, the freeboard forward of the *Royal Sovereign* was a whole deck height greater than that of the battle ships of the British navy which had immediately preceded her. Her displacement, speed, and armor protection were also a distinct advance upon those

of any battle ship previously designed for the British navy. It will be very interesting to note, therefore, the highly laudatory comment made upon the general characteristics of this vessel from the seagoing officers' point of view, since the general behavior of the sea has not changed one particle since the *Royal Sovereign* was designed, and the necessity for a certain character of water-line armor distribution and a certain height of freeboard was quite as definite at that time as it is to-day.

In passing, it may be noted that the freeboard forward of the *Royal Sovereign* is less than that of any vessel of the Atlantic battle-ship fleet except the *Kearsarge* and *Kentucky*. The heights of the forward gun axes are also less, and the height of the lower tier of broadside gun axes is also less, all measurements in this connection being based upon designed load waterline. In this connection, it may be well also to note that there is a very general tendency among inexperienced and ignorant critics to compare gun heights, freeboards, etc., of American battle ships at *deep load displacement* with corresponding figures for foreign battle ships at *normal* or *designed load displacement*, a very obviously erroneous and wholly unfair method of criticism. It is also worthy of note that although the lower edge of the main water line belt armor of the *Royal Sovereign* was 5 feet 6 inches below the waterline at designed load draft, this immersion is more than 6 inches deeper than that of the lower edge of the main waterline belt armor of the majority of our battle ships at their designed displacement. The *narrowness* of this belt and insufficient submersion below the normal load waterline was adversely commented upon by several distinguished naval architects, particularly Sir Edward Reed, so that at that time Sir William White had to defend himself against the use of what was styled by some a *narrow waterline* belt, although it was unanimously agreed by the seagoing element in its criticism that the width of belt used by Sir William White was sufficient, considering the many compromises which had to be made, and the utter impossibility of having an unlimited amount of armor for protection of the vessel without the sacrifice of other more important qualities. This point should be borne carefully in mind when considering recent criticism of the *too great* submergence of the lower edge of the main waterline belt armor of American battle ships, this submergence being in all cases *less* than that of the lower edge of the main waterline belt armor of the *Royal Sovereign*.

Mr. LOUD. What width was the armor?

Admiral CAPPS. Eight feet 6 inches, or 5 feet 6 inches below the water line and 3 feet above the water line when the vessel was at her normal load displacement with 900 tons of coal on board.

Mr. ROBERTS. How did the width of the above waterline compare with ours?

Admiral CAPPS. The height of the upper edge of the main waterline belt armor of the *Connecticut* class above the designed load waterline is 4 feet 3 inches, that of the *Royal Sovereign* being 3 feet. The width of the belt armor above the waterline belt of the *Royal Sovereign* class was 7 feet and its thickness 5 inches, whereas the width of corresponding armor of the *Connecticut* class was 14 feet with thickness varying from 6 to 7 inches; the corresponding armor of all vessels subsequent to the *Connecticut* class being at least 7 inches in thickness. In fact, the thickness of the side belt armor

immediately above the main waterline belt armor on the *South Carolina* and *Michigan*, *Delaware* and *North Dakota*, is only 1 inch less than that of the main waterline belt armor, being 10 inches thick at the bottom and 8 inches thick at the top. In every respect the armor distribution on the *Royal Sovereign* class is inferior to that on all of our recent battle ships. A great deal of the superiority in armor protection of our recently designed battle ships as compared with armor protection of the *Royal Sovereign* class is, however, obviously due to the great developments in armor manufacture which have taken place since the design of the *Royal Sovereign*.

Mr. ROBERTS. The height of the armor on the *Royal Sovereign* above the water line was substantially the same height as the heaviest armor on our ships?

Admiral CAPPS. The height of the upper edge of the heavy waterline belt above the designed waterline was less than that of the upper edge of main waterline belt armor on most of our battle ships and did not exceed in height any of the others.

One of the principal causes of error and confusion in criticising the location of armor belts on our battle ships and the submersion of the lower edge below the water line is undoubtedly due to a misunderstanding of the terms "*load displacement*" and "*deep load displacement*." The sensational statements concerning the alleged improper location of our water-line armor have little if any foundation in fact. It is wholly improper and unfair to compare the location of the upper edge of the water-line armor of our ships when they are completely filled with stores, coal, ammunition, etc., with the location of the upper edge of water line of foreign ships when they have on board less than half their bunker capacity of coal and only a portion of their stores, ammunition, etc. The difference in draft between the *load* and *deep load* condition varies approximately from 1½ feet to 2½ feet for our battle ships and a corresponding amount for foreign battle ships.

Returning to the particulars and discussion of the designs of the *Royal Sovereign* class, I consider them worthy of most careful consideration since they cover explicitly points now raised with respect to our own ships, the necessity for adequate height of freeboard and gun axes and depth of water-line belt armor submergence being as great at the time of the cordial approval of the *Royal Sovereign* designs as it is to-day.

The sketch plans and description of the *Royal Sovereign*, as previously noted, were presented at a gathering of distinguished naval officers and others in London in April, 1887, and the naval contingent had a field day. Practically every naval officer of prominence in London was there and the discussion was most animated; but the practically unanimous verdict of the naval officers present was that the *seagoing element* had at last obtained a design that met the requirements of those who would have to command the ships in battle. Some of the comments of the seagoing element were so very pointed and laudatory that I shall beg your indulgence and submit a few brief extracts from remarks made by the following well-known British naval officers and others:

Lord Armstrong, a most distinguished inventor and gun maker and founder of the well-known gun factory and shipbuilding plant at Newcastle-on-Tyne; Capt. (now Admiral) Lord Charles Beresford,

whose reputation at the present day is too well known to require further notice here; Admiral of the Fleet, Sir Geoffrey Phipps Hornby, principal naval aid-de-camp to the sovereign, one of the most distinguished officers of the British navy, whose name was a household word at the time of the discussion of the *Royal Sovereign* designs; Rear-Admiral P. H. Colomb, a well-known British naval officer, who has contributed liberally to service literature; Admiral Lord Clanwilliam; Capt. (afterwards Admiral) S. Long; Capt. (now Admiral) G. H. U. Noel, until recently in command of the British Asiatic fleet, and a most progressive officer who has written extensively on naval subjects; and, finally, Mr. (now Sir) William H. White, at that time and until recently director of naval construction and assistant controller of the British navy, and one of the most distinguished and best-known naval architects of the present day, who, though on the retired list and not now actively connected with the Admiralty, is still intimately associated with professional and technical work, and was the consulting naval architect for the ship-building firm which recently built the *Mauretania* and was intimately associated with the development of the designs of that vessel. Quotations from Sir William White's paper will be first given, inasmuch as they indicate, briefly, some of the conditions under which the designs were prepared. The comments of those who took part in the discussion will follow immediately thereafter, beginning with those submitted by Lord Armstrong:

[Extracts from a paper "On the designs for the new battle ships," read at the 30th session of the Institution of Naval Architects, April 10, 1889.]

MR. WILLIAM H. WHITE (director of naval construction). Recognizing the great interest which is now being taken in the designs of the eight first-class battle ships which are proposed to be added to the navy, and feeling convinced that no equally suitable opportunity could be obtained for replying to criticisms of the designs which have appeared in the public press, I applied for and obtained permission from the First Lord of the Admiralty to prepare this paper.

Apart from the fact that I am the head of that staff, and apart from any question of my personal competence, I desire to state that there never has been a time during my experience at the Admiralty office—an experience extending over twenty-two years—when the members of that staff included so many thoroughly educated, capable, and qualified naval architects and marine engineers as are now serving there.

If with such a staff, with all our recorded data and experience, with our grand experimental establishment at Haslar, so ably conducted by my friend, Mr. Froude, and with all the valuable assistance and suggestions coming to us from the naval service, and our professional colleagues in the dock yards, as well as the constant benefits we derive from a full knowledge of the work done by private shipbuilders and foreign competitors, we do not, in the "Whitehall Office," succeed in producing "the best possible ships" consistent with the instructions of the Board of Admiralty, then there can be no excuse. But I contend that the allegations made against the professional officers of the Admiralty have been loosely made, and are proved to be unfounded, as regards the designs of the new battle ships, by the facts which have been adduced.

On this question I shall not be expected to give an opinion. It involves an inquiry into the competency of the board of admiralty and our system of naval administration. But at the risk of repeating statements already made, I must say that there never have been designs more deliberately and carefully considered. The selection was made from among a large number of alternative designs, after a careful review of what is being done abroad, and with reference to various proposals not yet embodied in actual ships. Fortunately, it could be based upon a great mass of new experimental data, obtained by actual trials against the *Resistance* and elsewhere, and giving the latest and best information in relation to guns, projectiles, explosives, and armor. Moreover, the board of admiralty has availed itself of the advice and assistance of a number of distinguished officers before coming to a decision.

Obviously there is room for differences of opinion, since actual experience in naval warfare under modern conditions is almost entirely wanting. The matter, therefore, resolves itself into one of *relative authority and experimental information*. Under these circumstances, the naval service and the country will probably prefer to accept the conclusions of a responsible and well-informed body like the board of admiralty, rather than those of any individual.

[Discussion of the paper presented by the Director of Naval Construction, Mr. White.]

Lord ARMSTRONG. With regard to the question of armor, it certainly appears to me, from all that we have heard both from Mr. White and from Sir Edward Reed, and from all that we can gather from these numerous diagrams, that we may come to this conclusion, that if we render a ship absolutely safe from being sunk by modern artillery we shall simply eliminate its power of sinking anything else. It is clear to me we must have a compromise between defensive power and offensive power, and as far as I can judge from a hasty inspection of these diagrams, and from listening to all that has been said upon the subject, it does appear to me that the compromise which is presented by these latest designs, especially by the battle ship of the barbette stamp, that we have in that ship the best compromise between defensive power and offensive power that has yet been submitted to the public.

Captain Lord CHARLES BERESFORD. I think that Lord Armstrong hit the right nail on the head in this great controversy as to what is the best platform that you can build to send your men and guns to sea to fight an action with. The controversy is between the armament and the armor, and Lord Armstrong, in my humble opinion, hit the right nail on the head when he said if you build a ship with the capabilities which Sir Edward Reed demands, and justly demands, from his point of view, you would have nothing offensive to hit your enemy with. That is the real point, as I look at it. A ship is always a compromise.

I say distinctly as a seaman, and I hope one of my brother officers will get up and contradict me if he does not agree with me, that what we want in a ship is the offensive part. We are very glad to have as much defensive as we can, but we do not want to sacrifice in any particular whatever the offensive power which we possess of knocking the enemy into a cocked hat.

I do not believe they could have made a better ship than these new ones, although Sir Edward Reed does not agree with it. I hope he will produce his ship. I think he will be the first to agree with me that, in a fair argument, theory is of no use to any man, and theoretical argument should be practically demonstrated. Mr. White and the Board of Admiralty have produced their ships, and I dare say I could find fault with those ships, but taking the compromise I think they are the best class of battle ship you can make for the present day, having regard to the new high explosives. * * * On our navy depends our existence, and we must not run the chance, with our want of knowledge of actual warfare, of foreign nations getting something other than we have got which might win them the action if we came to hostility. * * * Those new ships now have, in my humble opinion, for the first time been proposed to be built in a businesslike way and in the way in which any mercantile firm would build their own ships or a man-of-war if they had to build one. *They have got the seamen together (by the seamen I mean the engineers and the artillerymen, and the men who have got to fight the ships), and they have stated what they wanted to have, both in regard to capability of offense and defense, draught, and speed. * * * You must have a ruling power; somebody has got to lay down your ships, and this somebody, whoever he has been, has been put to do it in a businesslike way for the first time, and therefore I should take the opinion of my brother officers against my own, who have been asked first of all, What do you want to fight with?*^a

It was put very well the other day by Mr. White in his paper; we keep on arguing as to what damage the ship will receive, and we quite forget the offensive power that we possess, that we are going to give the enemy the benefit of.

Admiral of the Fleet Sir GEOFFREY PHIPPS HORNBY. Lord Ravensworth, my lords, and gentlemen, I have come here following an officer (Lord Charles Beresford) whom I am sorry to say I must call a younger officer. In almost everything he has said with reference to the service at large I entirely agree, and I think that he expresses the feeling of the greater part of the naval profession.

All I wish to point out is this, that I feel with reference to these ships as a naval officer, and as one who has served on board ironclads, *that I should be glad indeed to*

^a Italics not author's.

*serve in such ships as these which are now shown us, because they seem to me to embody the idea which Lord Charles Beresford has so strongly put forward, and what I believe is the idea of every naval officer, that they are ships of very great offensive power. They have great speed, which I consider is the highest quality that any ship can have; and, mind you, I do not want to put my opinion forward; I go upon the opinion of our highest authority, that of Lord Nelson. * * * Why I approve particularly of these ships is that I think, as Lord Charles Beresford said, that hitherto our ships have never been built in the right way; that is to say, you have never asked the man who is going to inhabit the house what sort of house he would like to have, but have disregarded the opinion that those gentlemen have given—the requirements that those gentlemen have laid down. But now these requirements have been carried out, very much to the satisfaction of those who are particularly concerned—that is, the officers who have to command your fleets. The names of the officers to whom these plans have been referred, and who have approved of them, are those of officers who have just left active service. Only one name has been omitted, viz, that of Admiral Tryon, and that is in consequence of his having been laid up by an accident, but otherwise you have the opinion of the officer commanding the Channel fleet, the officer lately in command of the Chira fleet, and the officer lately commanding the India fleet. I say myself you have got every name barring one which could guarantee the propriety of these ships, and for my part I feel on their opinions much more strongly than I do upon my own, that these ships are good, and will be serviceable ships, and such as any admiral will be fortunate to command.*

Rear-Admiral P. H. COLOMB. My Lord and gentlemen, I think two distinct points must be apparent to the meeting from the discussions which have gone on. First of all, that you have got a number of naval officers in perfect agreement, which is not common; and, secondly, that the difficulties which the naval architect has to deal with in building battle ships are the difficulties of opinion, that is to say, the naval architect has to go by the opinion of the day when he builds; and sometimes after he has built opinion turns somewhat against him.

* * * * *

I should like to say, speaking as a naval officer, about these designs, that this thing has not been done in a corner. That is to say, the navy has been taken into the confidence of the constructors, and the board of admiralty, in a way that it never was before, and I think the result must be this, that never in this theater will naval officers be able to get up and denounce those ships if they turn out differently from what they expect, but that the constructors will be able to turn round upon us, and say, "They are your ships; they are not ours." I think the navy is quite prepared to accept the responsibility for these ships, for, taking them all in all, we are agreed generally that they are as good as the opinion of the day will allow us to have them. * * * But I want to say, finally, that I believe the feeling of the service is entirely clear on the designs of these new battle ships; that taking what the service asks for all round they are the fairest, the most open, and the most complete attempt to meet the naval opinion of the day.

Admiral Lord CLANWILLIAM. I will not detain the meeting two minutes. I only wish to add my testimony as a naval officer to the general opinion throughout the service that these vessels are of the right sort, and that we have every confidence in the ability of the officers who gave the instructions to Mr. White to design them.

Capt. S. LONG. The only other point upon which I would take up the time of the meeting is with regard to the high freeboard forward of the new ships, which is an interesting question.

I notice in Plate IX that the lower part of the freeboard forward is divided up into small spaces. I was very sorry to see that, but I would remark that the height of freeboard which is necessary ^a is a very important question, and one upon which, I think, experiments might throw a good deal of light.

[Discussion of a paper presented by Sir Nathaniel Barnaby.]

Capt. G. H. NOEL. Being the third naval officer who has spoken in succession, I am afraid you will be tired of hearing what the navy has got to say; but I won't be very long. In the few remarks I have to make I hope that Sir Nathaniel Barnaby and the gentlemen present will excuse my dwelling not so much on to-day's paper as on yesterday's. I would like to express my entire confidence in the exceptional ability of the Chief Constructor of the Navy, Mr. White, and to thank him for his admirable paper of yesterday. I believe that he came back to the admiralty fully intending that what he did there he would do in concert with the naval authorities, and it was in

^a "Any excess over what is necessary is most objectionable, owing to the increased weight and size of target involved in it."

consequence of his carrying out that intention *that we got this new type of ship*, which was so greatly approved of in the discussion yesterday.

* * * * *

We want to have some offensive power as well as being, to some extent, protected. On this question, speaking of the *Admiral* class, I stated in a paper read at this institution in 1885 that with an addition of about 150 tons of 3-inch steel plating, sufficient to give the *Collingwood* a 6-foot water-line belt at her unarmored ends, I thought that she would be as capable and effective a vessel as any afloat at that time. I still adhere to that opinion.

NOTE.—The freeboard of the *Collingwood*, forward, was about 7 feet less than that of the *Royal Sovereign* and about 10 feet less than that of the *Connecticut*.

Admiral Sir W. HOUSTON STEWART. During the ten years that I was at the admiralty, the admiralty of the day, one administration after another, used the utmost endeavors to obtain the views, opinions, and criticisms of naval officers in regard to the designs proposed, and I confirm what I said yesterday when that noble lord, gallant naval officer, popular orator, and efficient member of Parliament was speaking, that during the time I was comptroller of the navy no design went forth from the admiralty that was not stamped with the board's seal in the presence of the board of admiralty, and signed by the responsible naval officers of the day. Sir Edward Reed paid me the compliment in a letter in *The Times* the other day to say that he believed I was primarily responsible for the *Admiral* class. If it is so, I may accept that responsibility with pride, because I was associated with some of our most distinguished and most efficient naval officers who formed the board of admiralty at the time that class of ships was designed.^a

The foregoing description of the conditions under which the *Royal Sovereign* was developed indicates quite clearly the degree of consideration given to the designs of the *Royal Sovereign* class of battle ships by the most representative officers of the British navy. I shall now invite your attention briefly to two other notable occasions upon which the detail characteristics of battle-ship design were given most specific attention by boards of officers in our Navy, although it should be borne in mind that these questions are always given most serious attention in the development of the designs of battle ships.

On March 25, 1896, the Acting Secretary of the Navy appointed a board (of which the late Rear-Admiral John G. Walker, U. S. Navy, was president) "for the purpose of considering and reporting upon the best plan for the installation of the main batteries of such battle ships as Congress may authorize during its present session," and other questions relating to battle-ship design. The other members of the board were Commodore R. L. Pythian, Chief Engineer Edward Farmer, Capt. Philip H. Cooper, and Naval Constructor Joseph J. Woodward, U. S. Navy. Subsequently Captain (now Rear-Admiral) Remey relieved Captain Cooper, and Lieut. (now Capt.) S. A. Staunton was appointed an additional member of the board. Although this board was primarily organized for the purpose of making recommendations with respect to the battery, it very properly considered the whole question of battle-ship design, in order that it might arrive at an intelligent conclusion with respect to the best type of battery to be adopted. In connection with their duty the board made a sea voyage on the U. S. S. *Indiana*, and inspected the *Massachusetts* and *Iowa*, then in course of construction, with a special view to comparing the relative advantages of these vessels. It also had before it Capt. W. T. Sampson, then Chief of the Bureau of Ordnance, and Prof. P. R. Alger; also Chief Constructor Hichborn, Naval Constructor Taylor, and Assistant Naval Constructor Dashiell, these officers being called to testify particularly with respect to the adop-

^a Italics not author's.

tion or elimination of superimposed turrets. The board also witnessed the firing of 10-inch and 12-inch projectiles against a facsimile of the turret of the *Massachusetts*, and also considered a mass of documents submitted to it in connection with the general subject of battle-ship design. The following quotation from this report is most interesting:

The board upon its earliest inquiry into the nature of its duties found them of a most comprehensive character. The installation of the battery of a battle ship is not a question which stands alone. It is inseparably connected with the size of guns, their number, and the armored protection which their emplacements are to have. This total weight of armament depends in its turn upon the size of the ship, her hull protection, and the speed and coal endurance contemplated in her design. Connected with these features and bearing materially upon her military efficiency are the habitability of a ship (which includes sufficient quarters and berthing space for the officers and men necessary to properly navigate and fight the ship) and her seagoing qualities, i. e., her capacity for steaming and fighting in bad weather.

The necessity of these adjustments is a matter of common knowledge, and is condensed into the axiomatic saying that "every ship is a compromise." The board assumes, however, that the new battle ships will be as to size, speed, and coal endurance substantially the same as those already building, viz, of about 11,500 tons normal displacement, 16 knots speed, and 1,200 to 1,600 tons coal capacity, and with these assumptions it proceeded to attack the problem placed before it.

To arrive at a conclusion upon a problem so complex it is necessary to narrow the issues by successive steps. Considering size, speed, coal endurance, and hull protection as fixed within narrow margins, the board had next to consider the different types of batteries installed and projected. These are, for our own Navy, three in number, viz:

- (1) That of the *Indiana* and class.
- (2) That of the *Iowa*.
- (3) That of the *Kearsarge* and *Kentucky*.

It became the board's duty to recommend the adoption of one of these types, or to suggest such modifications as in its opinion would make a better ship than any of them.

The board also invited attention to the desirability of carrying a larger proportion of the coal and stores at the normal draft than had previously been customary, and that at her normal draft (which should also be her fighting draft) she should carry not less than two-thirds of her full capacity of ammunition, coal, and stores, and that the position of the armor belt should bear a proper relation to this load line. From that time to the present day two-thirds of the ammunition and all consumable stores, other than coal, have been carried on the designed normal displacement of the vessel. The proportion of coal carried at designed load displacement, however, has not been in our service, or in any other service, as much as two-thirds of the full capacity of the bunkers except in the case of vessels of the *Alabama* class, which were the direct outcome of the Walker board's recommendations. The subsequent reduction in the *proportion* of coal carried was due, undoubtedly, to the fact that while the *Alabama* class had a bunker capacity of only 1,200 tons, thus making two-thirds of the bunker capacity a very fair proportion of the coal to be carried at designed displacement, subsequent designs provided for a very *much greater bunker capacity*, so that 900 to 1,000 tons was regarded as a suitable amount to be carried at the designed load displacement. The practice of the United States Navy in this respect is practically identical with that of foreign navies. The Walker board also invited particular attention to the desirability of battle ships of the United States Navy being able to "perform any duty required of ships of their type and strength, and that their seagoing qualities should not

be inferior to those of the battle ships of other navies." The conclusion and recommendations of the board were as follows:

That the new battle ships, when fully equipped for service, and containing not less than two-thirds of their full capacity of ammunition, stores, and coal, should not be deeper than their "normal" or designed draft upon which their speed is based; and that their weights of armor and armament should be restricted accordingly.

That they should have sufficient berthing space to accommodate the officers and men of their war complements in such a manner as to maintain their health and vigor.

That no feature of their design should be permitted to seriously impair good seagoing and sea-enduring qualities.

That they should have high freeboard forward, and low freeboard aft, substantially like the *Iowa*, and be armor belted like the *Kearsarge*.

That their principal battery should consist of four 13-inch guns mounted in two turrets in pairs, substantially as the *Iowa's* 12-inch guns are mounted; these principal turrets to be placed as close to each other as the machinery space conveniently permits.

That their auxiliary battery shall consist of fourteen rapid fire 6-inch guns, ten on the main deck and four on the upper deck, all behind 6-inch armor. Two of the guns on the main deck in the eyes of the ship have forward fire, two of the guns on the upper deck have forward fire, and the other two fire aft. All of the 6-inch guns fire in broadside, seven on each side.

It thus appears that this specially selected board, a large majority of whose members were seagoing officers, recommended a vessel whose *freeboard*, *water-line protection*, etc., were regarded as entirely satisfactory to the seagoing element at that time. The actual vessels whose design embodied the recommendations of this board are the *Alabama*, *Illinois*, and *Wisconsin*, and the board's recommendation as to freeboards indicated that they regarded the "forward freeboard" provided for the *Alabama* class as "high."

Again, the general board of the Navy, which is composed entirely of seagoing officers and is presided over by one of the most distinguished officers the American Navy has ever had, recommended under date of October 17, 1903, in a report submitting the principal characteristics which should be embodied in battle ships, as follows: "To have high freeboard forward. In this respect the *Iowa* type impresses favorably. Armor protection: similar to the *Maine* class." Subsequently the board modified its recommendation as to the armor protection and concurred in the recommendation of the board on construction as to the superiority of distribution of armor on the *Vermont* class. It may be noted in this connection that the "high freeboard" forward on the *Iowa* is slightly less than that of any vessel in the Atlantic battle-ship fleet except the *Kearsarge* and *Kentucky*.

We therefore have a *height of freeboard* and *distribution of water-line belt armor* in the large majority of battle ships of the United States Navy which commanded the *explicit approval* of *thoroughly representative seagoing officers* in our own service; and, vessels of similar characteristics had and still have the approval of service sentiment in the British and Japanese navies; and the sentiment to-day of those who have given careful and exhaustive consideration to these subjects is just as definite and pronounced as it was when these matters of freeboard and water-line armor arrangement were first under consideration.

It should also be remembered that the designs of all vessels of the United States Navy are passed upon by the board on construction. The original title of this board was, in fact, "the board on the designs of ships." Among the membership of this board from 1889 to the date of the approval of the designs of the *Connecticut* class (the most

recently designed class of vessels now attached to the battle-ship fleet) were the following well-known officers of the United States Navy:

Name.	Period of service.
Admiral of the Navy George Dewey.....	1880-1893
Rear-Admiral Montgomery Skard.....	1880-1890
Capt. G. B. White.....	1880-1890
Chief Constructor T. D. Wilson.....	1880-1893
Engineer in Chief George W. Melville.....	1880-1903
Rear-Admiral William M. Folger.....	1890-1893
Rear-Admiral Charles H. Davis.....	1890-1893
Rear-Admiral Norman H. Farquhar.....	1890-1893
Rear-Admiral French E. Chadwick.....	1893-1897
Rear-Admiral William T. Sampson.....	1893-1897
Rear-Admiral Frederick Slinger.....	1893-1896
Rear-Admiral E. O. Matthews.....	1894-1896
Chief Constructor Philip Hichborn.....	1893-1901
Rear-Admiral Charles O'Neill.....	1897-1904
Rear-Admiral R. B. Bradford.....	1897-1903
Capt. Richard Wainwright.....	1897
Rear-Admiral Richardson Clover.....	1897-1900
Rear-Admiral Charles D. Sigbee.....	1900-1902
Chief Constructor Francis T. Bowie.....	1901-1903

Considering, therefore, the overwhelming preponderance of representative naval opinion as to the desirability of the freeboard and armor distribution actually provided on battle ships of our own Navy and on those of similar type in British and other important foreign navies, it is evident how very much astray are the self-satisfied critics who state that "all of our battle ships are deficient in freeboard, water-line protection, etc." Perhaps the critic is not aware, however, that there are two distinct "schools of design," so far as concerns height of freeboard, height of gun axes, and water-line armor protection, and that while the English, Japanese, American, and, to a less extent, the German designers preferred moderate freeboard and a certain arrangement of water-line armor protection, the French and Russian designers had different ideas on those subjects. Thus, for many years the tendency among French designers has been to elevate the main battery high above the water line—as a rule, about one deck height higher than in the British, American, and Japanese ships, at least so far as concerned the forward turrets. This possibly permits the forward main battery to be operated under conditions of sea during which gun fire of any kind must be regarded as futile; but, under any condition of sea in which naval battles are likely to be fought, such extreme elevation of the battery is regarded by naval designers and naval officers of most other countries as quite undesirable in view of the great sacrifices involved in such an arrangement, the consequent raising of the center of gravity of the vessel, less efficient armor protection to turret supports, and greatly increased size of target being disadvantages of a most serious character.

I think it is pertinent in this connection to remark that the principal battle ships of the Russian fleet which took part in the battle of the Sea of Japan were designed in accordance with the ideas of what may be termed the "French school," while practically all of the battle ships and armored cruisers of the Japanese fleet were designed in accordance with British and American ideas of moderate

freeboard, moderate gun heights, etc. All of the Japanese battle ships and armored cruisers which took part in the battle of the Sea of Japan were afloat and in good condition at the termination of the battle, and while high freeboards and a certain character of water-line armor protection may not have been directly responsible for the foundering of such vessels of the Russian fleet as were sunk by gun fire, the sacrifices which had to be made in order to develop that type of design were undoubtedly contributory to the ultimate foundering of those vessels. In order that it may be clearly apparent that the weather conditions during the battle of the Sea of Japan were such as to "try out" the moderate freeboards of the Japanese vessels, the following quotations with respect thereto are given:

John Leyland, in *Brassey's Annual* for 1906, chapter 8, says, on page 105, that "a heavy sea was running." On page 99 he says that "the weather was misty with a wind from the southwest and a sea which caused Rojestvensky's ships to roll heavily and greatly distress the destroyers."

Lieut. R. D. White, in the *Proceedings of the Naval Institute* of June, 1906, quotes one of the Russian officers as saying that "the morning of May 27 was raw and cheerless; the cold wind blew from the southwest; a grayish mist hung overhead and shut out vision well short of the horizon. When the rain fell later in the day it was cold and penetrating."

Henry Reuterdaahl, in *Jane's Fighting Ships*, 1906-7, relating the story of the fight as told him by survivors, states that "there was a strong breeze and heavy sea, rising almost to a gale."

In order, however, that there may be no possible misunderstanding as to "gun-fire" casualties in the battle of the Sea of Japan, it should be noted that reports indicate that only two Russian battle ships were sunk as the *direct result of gun fire*, during the *five hours' fighting* of the first day; and this in spite of the excessively overloaded condition of these vessels at the time of the battle, as indicated by subsequent official statements, this overloading naturally resulting in the complete submergence of the heavy water-line belt armor and a marked decrease of stability under damaged conditions. It is noteworthy, therefore, that even under these *unusual conditions of excessive overloading* with the *definite decrease in defensive qualities consequent thereupon only two battle ships succumbed to gun fire* and *one of these only after five hours' fighting*. These reported facts would seem to be sufficiently eloquent when considering the possibilities of our own battle ships.

Again, we surely can assume that the Japanese have had as extensive experience under modern battle conditions at sea as any nation in the world; and yet a very recently designed Japanese battle ship, which presumably embodies the lessons learned at Tsushima, has approximately the same freeboard forward as our ships of the *Maine* and *Alabama* classes, although from 100 to 125 feet longer, thereby indicating clearly that the Japanese are willing to sacrifice something in "freeboard" and "gun height," even in so long and speedy a vessel, in order to more fully develop other qualities.

Although the British in their *Dreadnaught* and the United States Navy in the *Delaware* have considerably increased the freeboard forward on such vessels, such an increase in freeboard is in no sense a reflection upon previous designs or a confession that previous designers were in error, but is a perfectly normal and logical development due to increase in length of ship, increase in fineness of water lines, concentration of heavy weights relatively near the extremities, etc.

When a critic recently stated in a magazine article that it was only "after special pressure from the President of the United States that

our latest ships were given proper freeboard" he simply advertised himself as a disseminator of false statements and as one quite ignorant of the subject he was presuming to discuss. As the Chief Constructor of the Navy I can state most positively that no such criticism, no such suggestion, no such direction, has ever come to me from the President of the United States in relation to the designs of the *Delaware* class, the only class of battle ships in the United States Navy with very high freeboard forward, this high freeboard being given by the designer for reasons already set forth.

In order that the gross misstatements concerning our naval material which have recently appeared in print might be fully disproved so far as the Navy Department is concerned, the Bureau of Construction and Repair, under the authorization of the Secretary of the Navy, has taken great pains to arrange data with respect to the United States Navy in such form that the members of the Naval Committee can readily see the exact condition of our ships with respect to freeboard, height of gun axes, location of water-line armor, etc. There has also been collected similar data from every practicable source respecting typical foreign ships, and there have been constructed "cross sections" and "profiles," which indicate clearly the arrangement of freeboard, armor, etc., on those ships in direct comparison with those of the United States Navy. This information, and any other information in the possession of the Chief Constructor, is at the disposal of the committee, and there will be added to this hearing as an appendix a few comments from foreign technical publications showing the regard in which American battle ships are held abroad. Some of these comments are especially significant, as they were made contemporaneously with the first appearance of particulars concerning these designs and make direct comparison between American and foreign battle ships of the same period. Sections and profiles of the following typical battle ships of the British, Japanese, Russian, French, German, and United States navies of the same period of design have been prepared and so arranged as to permit direct comparison.

U. S. NAVY.

Indiana.
Iowa.
Kearsarge.
Alabama.
Maine.
Virginia.

Connecticut.
Vermont.
Mississippi.
New Hampshire.
South Carolina.
Delaware.

BRITISH NAVY.

Royal Sovereign.
Majestic.

King Edward VII.
Dreadnaught.

JAPANESE NAVY.

Asahi.
Mikasa.

Kashima.
Aki.

RUSSIAN, FRENCH, AND GERMAN NAVIES.

Pobieda.
Kniaz Souvaroff.
Suffren.

Republique.
Hessen.

The diagrams show clearly the location of water-line armor, heights of freeboard, gun axes, etc. The French and Russian ships, as previously stated, are in a class by themselves, the forecastle and forward guns being as a rule one deck height higher than the American, British, Japanese, and German battle ships.

The plans of cross sections, profiles, and tabular data referred to are at the disposition of the committee and will be explained in detail if desired. The list is as follows:

I. Tabular statement giving principal characteristics of typical foreign battle ships.

II. Comparative table of gun heights, etc., of typical battle ships.

III. Tabular statement of "designed" heights of upper edge of main water-line belt armor above trial or load water line for typical foreign and United States battle ships.

IV. Length and thickness of water-line armor and upper side belt armor for United States battle ships.

V. Tabular statement of principal characteristics of Russian and Japanese ships which took part in the battle of the Straits of Tsushima, or Sea of Japan.

VI. Tabular statement of heights of turret and broadside gun axes above designed load water line for United States battle ships and armored cruisers.

VII. Cross sections of typical battle ships of the United States and foreign navies, showing breadth and thickness of main water-line belt armor; also depth of submersion of lower edge of main armor belt below the designed load water line; also height of top of main armor belt designed load water line; also designed load displacement and coal carried on designed load displacement; also height of freeboard and height of broadside gun axes.

VIII. Profiles and cross sections of typical battle ships of the United States Navy, giving distribution of armor, heights of gun axes, etc. (Sheets 1 to 14.)

IX. Profiles and cross sections of typical foreign battle ships, giving distribution of armor, heights of gun axes, etc. (Sheets 1 to 15.)

In preparing the above-mentioned cross sections and profiles of foreign battle ships and data concerning freeboard, armor distribution, gun heights, etc., the following were among the numerous sources of information consulted:

Parliamentary papers and other published official documents relating to foreign ships.

Special reports.

Photographs of foreign ships.

Transactions of the Institution of Naval Architects.

Bulletin de L'Association Technique Maritime, and other foreign technical society publications.

Engineer (London).

Engineering (London).

Naval and Military Record (London).

Nautical Gazette.

Armee et Marine.

Le Yacht.

Brassey's Naval Annual.

Naval Pocket Book (Clowes).

Jane's All the World's Fighting Ships.

Les Flottes de Combat.

Referring again to the magazine article which has been alluded to by the chairman and others, it has doubtless been noted that the article itself makes use of the terms "universal," "all other navies," etc. Leaving the magazine writer's realm of fiction, however, and considering only the facts, it may be stated that in the British and Japanese navies every single battle ship which has been designed since the *Royal Sovereign*, with the exception of the *Majestics* and *Dreadnoughts* of the British navy, has had approximately the same or just a little greater freeboard than the *Royal Sovereign* class, which, as previously noted, has a slightly less freeboard than the great majority of our battle ships.

The *Dreadnought* has, as previously noted, a forecastle about one deck height higher than previous British battle ships and in this respect is not unlike our latest battle ships of the *Delaware* class. But because the *Dreadnought* and *Delaware* with their greater length, fine water lines, and concentration of weights at extremities were given a higher forecastle, in the ordinary logical development of ship design, our friends, the critics, assume that every ship with lower forecastle which preceded the *Dreadnought* and *Delaware* was hopelessly deficient in freeboard and seagoing qualities. In other words, they drew entirely wrong conclusions and illustrated the old adage that "a little knowledge is a dangerous thing." The plans show so clearly the freeboards heights of gun axes of main and secondary batteries, etc., that I need not dwell longer on this subject.

Mr. BUTLER. How would the freeboard of the *Delaware* class compare with the freeboard of the *Dreadnought* class?

Admiral CAPPS. The designed freeboard of the *Delaware* class is approximately about two feet less than that of the *Dreadnought*, but the actual difference will probably be less on account of the reported "considerable overdraft" of the *Dreadnought*.

Generally speaking, freeboard in excess of seagoing requirements is most undesirable in a battle ship. High freeboard involves a high center of gravity and considerably less stability under damaged conditions; it also means greater target area; moreover, the extra weight devoted to high freeboard decreases the percentage of displacement which can be devoted to other seriously important elements of the design. So far as I am aware, the sentiment of the English and Japanese services is distinctly in favor of the moderate freeboard which has been characteristic of their ships wherever such moderate freeboard is practicable. In the very long and fine lined ship, however, with concentration of weight nearer the extremities, it is desirable, for seagoing reasons, as already stated, to raise the forecastle; but the Japanese are apparently so impressed with the desirability of limiting the elevation of their top weights and devoting as much weight as possible to armor and armament, that they appear to be willing to make some sacrifice in freeboard. They have therefore maintained approximately the same freeboard in their new and longer battle ships as seemed sufficient for their older and shorter vessels; and surely the Japanese have the advantage of great experience so far as concerns the essential requirements of battle ships under modern battle conditions.

Mr. MUDD. I would like to ask a question.

The CHAIRMAN. I would like to have Admiral Capps take up these things in consecutive order. The freeboard comes first, and the water-line armor is another proposition.

Mr. LOUD. I would like to ask you a question. What is the freeboard of the *Royal Sovereign* in feet?

Admiral CAPPS. It is reported by Sir William White, the designer, in the paper from which I have quoted, as 18 feet. It is also reported in a tabular statement, in the same paper, as 19 feet 6 inches forward and 18 feet aft.

Mr. LOUD. And what is the freeboard of the *Minnesota*?

Admiral CAPPS. The forward freeboard of the *Minnesota* under the same condition as the *Royal Sovereign* as to coal, stores, etc., is 20 feet 6 inches; after freeboard, 20 feet.

The CHAIRMAN. Are there any more questions to be asked on the subject of the freeboard?

Mr. ROBERTS. I would like to ask the Admiral if he can give us the relative heights of the heavy battery emplacements of the Japanese and Russian vessels in that sea fight?

Admiral CAPPS. This data is given for typical ships in the tables and in the diagrams previously referred to. The heights of gun axes of the principal battle ships of the Japanese fleet in the battle of the Sea of Japan were practically the same as those of British vessels of the same date of design, and were substantially the same, or less, than those of battle ships in the United States Navy. The largest and most recently designed battle ships of the Russian fleet were those of the *Borodino* class, and their forward main battery heights were approximately 7 feet greater than those of the Japanese.

Mr. ROBERTS. What was the height of battery of the Russian vessels?

Admiral CAPPS. The elevation of forward main battery of the principal Russian vessels was, roughly speaking, 7 to 8 feet higher than corresponding guns of the Japanese battle ships. They were one deck higher up. The designed height of the forward turret guns of the *Borodino* class was about 32 feet.

Mr. ROBERTS. That is the emplacement of their heavy guns?

Admiral CAPPS. Yes; their forward heavy guns.

Mr. ROBERTS. If my memory is not at fault, we were told within a year or so that the *Dreadnought* was supposed to be the embodiment of all that could be deduced from that fight in the Sea of Japan. She was supposed to embody all of the latest ideas, drawn from the observation of that fight. She has a very high freeboard, has she not?

Admiral CAPPS. Yes.

Mr. ROBERTS. Can you give it to us in feet as compared with our ships?

Admiral CAPPS. The parliamentary paper which gives the draft and other particulars of the *Dreadnought* states that it is 28 feet forward. The freeboard amidships and aft appears to be about the same as that of our *Connecticut* class, namely, 20 feet.

Mr. ROBERTS. Are we to understand, when you say 28 feet freeboard, that that is the level of the main battery?

Admiral CAPPS. Oh, no. The freeboard is the distance from the edge of the upper deck to the water line.

Mr. ROBERTS. What I want to get at is the height of the main battery over the water.

Admiral CAPPS. If you add about 5½ feet to the freeboard of American, British, and Japanese vessels you will get the approximate height of the turret guns on that deck.

Mr. LOUD. That is, taken amidships?

Admiral CAPPS. No; the freeboard abreast the guns. The 28 feet is the freeboard forward. In speaking of the freeboard of a ship, when we do not specially locate it, we refer to the "freeboard forward," because that is the important freeboard.

Mr. LOUD. And that is the one you referred to a moment ago, when you referred to the freeboard of the *Royal Sovereign* and the *Minnesota*?

Admiral CAPPS. Yes, sir. Although, as regards the *Royal Sovereign*, the forward freeboard has been stated in one official document to be 19 feet 6 inches, while in another part of the same paper the freeboard is given as 18 feet 0 inch; both, however, are considerably less than the freeboard of the *Minnesota*.

Mr. LOUD. I was told the other day that it was 24 feet, and I wanted to have it exact.

Admiral CAPPS. The height of the turret gun axis would be 5 feet 6 inches or 6 feet more than that. The forward turret gun axis of the *Minnesota* is 26 feet 5 inches above the water line at her designed normal load draft.

Mr. ROBERTS. I had not quite finished about the freeboard, or rather the gun axis—if that is the technical term—on the *Dreadnought*. I have been told that it is about 36 feet; that their guns are about 36 feet above the water.

Admiral CAPPS. So far as can be determined from the most accurate data available, the heights of the *Dreadnought's* turret guns above the normal or designed load water line are approximately as follows:

	Ft.	In.
Forward turret.....	33	6
Waist turrets.....	24	0
After turret.....	22	6
After turret.....	22	10

Mr. ROBERTS. How does that compare with what we call our *Dreadnought*, recently authorized?

Admiral CAPPS. The height above the designed load water line of the gun axes of the turrets of the *Delaware* are as follows:

	Ft.	In.
No. 1 forward turret.....	31	5
No. 2 forward turret.....	39	5
No. 3 after turret.....	32	2
No. 4 after turret.....	24	2
No. 5 after turret.....	24	2

Mr. ROBERTS. You say the English *Dreadnought* is higher?

Admiral CAPPS. No; the most lofty turret of ours is higher, but that is No. 2 turret from forward.

Mr. ROBERTS. How much higher?

Admiral CAPPS. Nearly 6 feet. But do not get the idea that the higher the gun the better the results, because that would be absolutely fallacious.

Mr. ROBERTS. I am not getting that idea. I am wanting to get some information simply to compare by.

Admiral CAPPS. All this information is tabulated or contained in the diagrams already referred to. The most complete information is

being prepared and will be at the disposition of the committee. I have with me now the tracings of cross-sections and profiles of typical ships.

Mr. ROBERTS. If I might continue along this line, did you give us the height of the main battery of this new Japanese ship, the *Aki*? Is that the name of the ship?

Admiral CAPPS. The freeboard, I said, was about 20 feet, forward. The turret gun axis should be about five feet and a half greater, making the height of the turret gun axis about 25½ feet above the designed load water line.

Mr. ROBERTS. Then that is practically a fixed rule for getting the gun axis—to add five feet and a half to the freeboard?

Admiral CAPPS. No, it varies with different ships. Some of the French ships have the axes of their turret guns about 9 feet above the deck.

Mr. PADGETT. I notice this statement in the article which has been referred to: "The three ships of the *Indiana* class have their bows but 11 feet above water; the two ships in the *Kearsarge* class but 13." Is that statement accurate?

Admiral CAPPS. That is one of the few nearly accurate statements in the article, the designed freeboard of the *Indiana* being 11 feet 6 inches, and that of the *Kearsarge* 14 feet 6 inches; and it is known to all the well-informed naval world that their freeboard is higher than that of British battle ships which immediately preceded the *Royal Sovereign*.

Mr. PADGETT. Now, another statement is this: "Of all our battle ships, not one shows its armor belt." But I believe you wanted to reserve that, Mr. Chairman?

The CHAIRMAN. I want to reserve the question as to armor belt. Are there any further questions as to the freeboard?

Mr. DAWSON. What is the height of the freeboard, forward, on ships of the *Delaware* class?

Admiral CAPPS. Nearly 26 feet.

Mr. BATES. Are these the heights without coal, or when laden with coal?

Admiral CAPPS. This is the height at the normal or designed displacement. The same basis of comparison is used for all the ships, American and foreign.

Mr. BATES. What is the variation, as a matter of fact?

Admiral CAPPS. The designed displacement contemplates having on board about two-thirds of all consumable stores, including ammunition, etc., and a variable amount of coal, the amount of coal being somewhat dependent upon the displacement and speed of the vessel. In the latest designs of our United States ships, also those of British, Japanese, and French battle ships, they allow for about 1,000 tons of coal to be carried at the designed displacement. To be specific, in the case of the *Dreadnought* the Admiralty memorandum, which is absolutely official, indicates that the coal carried at the load displacement would be 900 tons, the bunker capacity being 2,700 tons.

Mr. BATES. How much difference would that make in draft?

Admiral CAPPS. It would be in the neighborhood of 2 feet additional draft for the coal alone.

Mr. BATES. If the ship were laden heavily it would bring it down 2 feet or more, then, in all these measurements?

Admiral CAPPS. Yes, for the latest ships; but the height of the freeboard, etc., must be referred to some definite plane of flotation, and the one used in the United States Navy is that in use in all other navies.

The CHAIRMAN. Are there any other questions on the freeboard?

Mr. LOUD. What difference would there be in the draft of the *Minnesota*, for instance, as she went out on this trip, and when she would be in normal draft?

Admiral CAPPS. About 3 feet; but it must not be forgotten that *all* of the ships of the Atlantic fleet carried excess stores, ammunition, men, etc., and many of them a large amount of extra fresh water for the boilers. Even then, the upper edge of the heavy water line armor was more than *one foot* out of water.

Mr. ROBERTS. I would like to ask one question on the matter of the freeboard, that partakes somewhat of the armor feature. If you desire, I will reserve it.

The CHAIRMAN. I wish you would, if it touches the armor question.

Admiral CAPPS. I do not want the committee to think that because I have laid so much stress on the very exhaustive investigation in the case of the *Royal Sovereign*, which is just as applicable to-day as it was twenty years ago, that we have not in our own records plenty of documentary evidence relating to the question of freeboard and water line armor distribution. We have had board after board pass upon various matters connected with battle ship design, as noted in my last annual report, and I have already referred to the views of the board of which Admiral Walker[†] was president, also to the views of the general board, not to mention those of the board on construction, the majority of whose members have been of the seagoing element. In the case of the Walker board, which had in its membership four seagoing line officers, an engineer officer, and only one naval constructor, I have been informed that it was the naval constructor who had to insist on having high freeboard, there being a tendency among the seagoing officers to cut it down as much as practicable, for the perfectly sound military reasons that low freeboard meant small target, and the less target there was, the less chance there was of being hit; also that it was justifiable to take some risk as to the probable condition of the sea when battles were fought. However, what was then regarded as "the high freeboard" element won out, although in the minds of ill-informed critics, the "high freeboard" of 1896 seems to have become the dangerously "low freeboard" of 1907. It is well to note, however, that the laws of nature and the behavior of the sea were the same then as now.

Mr. BUTLER. Then the question of the height of the freeboard is almost as old as ship design itself?

Admiral CAPPS. Almost.

Mr. BUTLER. And has been under discussion always on naval boards?

Admiral CAPPS. It has been under discussion frequently; but those who are fully informed as to what has previously been done are quite aware that the conclusions ultimately arrived at will probably be the same.

Mr. BUTLER. I understand; but it has always been under discussion in the board?

Admiral CAPPS. Always.

Mr. BUTLER. And the height of our freeboard is the result of the wisdom, after conference, of naval experts?

Admiral CAPPS. Unquestionably.

Mr. BUTLER. That is all I want to know.

Admiral CAPPS (resuming). No member of a "board of design" who has regard for his reputation as a ship designer would alter his opinions on an important technical question (when he was convinced that he was right) merely to conform to the opinion of the majority; but the chances are ten to one that when all the members of the board have been advised of *all the facts*, the history of such matters in other countries and our own previous experience in design work, and have in addition their own personal experience in battle ships at sea, there is usually little difficulty in coming to a unanimous agreement; at least this has been my experience in the Navy Department during the past four years. There is nothing in our ship designs to conceal from those who have a right to know. There is nothing unusual or secretive in the action of boards on design. Battle-ship design, like everything else, must, however, conform to the laws of nature and the development of naval materiel, and when one has all the facts it is not so very difficult to reach a satisfactory conclusion. But when thoroughly experienced and competent men, after most careful deliberation, have made a decision as to the principal elements of the design, some bright genius is apt to think he has discovered something that was possibly known or disposed of many years before.

Mr. PADGETT. Admiral, I notice in that same article that has been referred to, this statement: "In the latest of the foreign ships, especially in the French and British navies, the high bow is universal." I wanted to ask if that was accurate, as it relates to the British, in their later policies?

Admiral CAPPS. He makes, as I have stated before, a very free use of the word "universal."

Mr. PADGETT. •Yes.

Admiral CAPPS. Prior to the designing of the *Dreadnought*—for the past nineteen years, in fact—British battle ships were designed, as to freeboard, on the basis established so definitely in the case of the *Royal Sovereign*; even the *Majestics*, which apparently had much greater sheer forward than previous or subsequent British battle ships, except the *Dreadnoughts*, have their freeboard abreast the forward turret only 2 feet higher than that of our *Connecticuts*.

Mr. PADGETT. What I wanted to get at was whether they have altered that plan. Have they changed that policy of late and adopted a different one?

Admiral CAPPS. Not in the slightest degree, for vessels of the same dimensions, etc., as those formerly designed. The increase in forward freeboard, as previously noted, is a logical development on account of increase in length, increased speed and finer water lines, and different distribution of weights.

Mr. PADGETT. That is what I wanted to know.

Admiral CAPPS. With the development of speed, which means finer water lines and less buoyancy at the bow; with the increase in length, which in the new vessels would probably mean greater immersion of the extremities while pitching in a seaway; with the concentration of weights at the extremities of the vessels, which accentuates the pitching motion—the raising of the forecastle is a perfectly logical,

reasonable development of what was accepted as entirely true and correct in previous designs.

Mr. ROBERTS. I would like to ask the Admiral how the freeboard of the ships that are being laid down by the English since the *Dreadnought* compares with that of the *Dreadnought*?

Admiral CAPPS. The same thing, practically.

Mr. ROBERTS. In other words, they seem to be uniform on the principle of that high freeboard design?

Admiral CAPPS. If you *must* have 525-foot ships, and 21 knots speed and fine water lines, and heavy turrets and barbettes well forward and aft, it will be wise to provide greater freeboard than for shorter, fuller, less speedy ships, if you desire relatively the same seagoing qualities.

Mr. BUTLER. What is the length of the *Delaware*?

Admiral CAPPS. Five hundred and twenty feet, about.

Mr. ROBERTS. Is not that likely to be the policy of the navies of the future, on the long, high-speed, fine-line ships?

Admiral CAPPS. Not necessarily. You know what must be the experience of the Japanese as regards such matters, and yet they are apparently willing to sacrifice a certain amount of seaworthiness in rough weather in order to save the great weight necessary to carry the bow one deck height higher. They take their chances, of course, in very rough water. If they should be compelled to fight in *very rough* weather, vessels with high bows would undoubtedly have some advantage over those with low bows. The Japanese naval authorities appear, however, quite willing to take that chance for the sake of the great saving in weight which the lower freeboard permits, and there are those who think their decision very far from unwise. As bearing on this very subject, in an article published in a well-known scientific paper a few years ago, this article being written by a seagoing officer who had been on duty on the *Kentucky* for nearly three years, it was stated that at no time during his cruise of three years had it been impossible to fight every gun of the battery, and the freeboard of the *Kearsarge* is 6 feet less than that of the *Connecticut* class and nearly 5 feet less than that of all other vessels of our Atlantic battle ship fleet, except her sister ship, the *Kentucky*.

Mr. ROBERTS. We did not get that testimony from the officers on the *Oregon* and *Indiana* and *Massachusetts*, did we? Was not the testimony there that the water came right into the turrets?

Admiral CAPPS. Probably not; but it must be remembered that the *Oregon*, *Indiana*, and *Massachusetts* are of the same class and were our first battle ships and were appropriated for and designed as "coast line battle ships" and had low freeboards forward.

I simply gave the testimony of the officer on the *Kentucky* as the contribution of one who had been on board that ship for three years and who apparently made an exact statement of fact. There have been other statements to the effect that those ships are too low forward, and in that opinion I concur. Their design has not been repeated, but they were designed to meet specific demands for that type of ship, and it is as useless to criticise them at this time as it would be to criticise the earlier low-freeboard vessels of other navies.

The CHAIRMAN. Now we will pass to the second, perhaps most important, criticism which has been made relative to the armor belt. Tell us about that, please.

Admiral CAPPS. The armor-belt question—that is, the degree of submergence of lower edge below water at normal displacement—was covered also in the discussion of the *Royal Sovereign* design. I have previously read various extracts from the discussion in the case of that vessel, so will not repeat them. In the case of the *Royal Sovereign* the main water-line belt armor was 8½ feet wide, and of that 5½ feet were below water and 3 feet above, at normal load displacement—a fact which has been the subject of much misunderstanding, since many have assumed that the submergence of 5½ feet below *load water line* was the submergence below the *deep load water line*, a very different thing, indeed. As was clearly stated in the Admiralty memorandum, there were only 900 tons of coal on board when the lower edge of armor was 5½ feet below the water line, while the capacity of the bunkers was about 1,800 tons. As previously stated, the height of the upper edge of the *Royal Sovereign's* heavy water-line belt armor above normal load water line was 3 feet, and our own ships designed about that time and since then have had not less than 3 feet above water and from 4 to 5 feet below water at designed load displacement. While the *Kearsarges* and *Alabamas* had about 4 feet submergence for lower edge of belt armor at designed load displacement, this submergence is relatively about the same as that of the *Delaware* class, when considering the difference in the breadth of beams of the two classes of ships. Five feet has, however, been generally regarded as the *minimum* immersion permissible for the lower edge of the main belt armor of battle ships at designed displacement, and such is the usual allowance in the English, French, Japanese, and other navies, so far as we have knowledge. Data on this subject have been prepared and are at the disposition of the committee.

Mr. LOUD. Is that armor that you speak of the same in the *Minnesota*—5 feet below?

Admiral CAPPS. Yes; 5 feet below at designed load displacement. In the *Minnesota* class and the *Connecticut* class, however, another great mistake has been made by our misinformed critics since the heavy water-line belt armor in the case of the *Connecticuts* and *Minnesotas* is 9 feet 3 inches in width, and the upper edge of this heavy belt is, therefore, 4 feet 3 inches above the *designed load water line*.

Mr. LOUD. And the *Minnesota* the same?

Admiral CAPPS. The same.

Mr. LOUD. How much below and how much above?

Admiral CAPPS. Five feet below and 4 feet 3 inches above. Then above that, in the case of the *Vermont*, *Minnesota*, *Kansas*, and *New Hampshire*, there are two belts of 7-inch armor of a total width of 14 feet 6 inches—a side armor protection far exceeding that of the *Royal Sovereign*, or any British battle ship since designed until the advent of the *King Edward* class.

Mr. LOUD. May I suggest in that connection that I saw the *Minnesota* the day before she sailed. I noticed that the upper edge of her armor came out of the water just aft of the gangway and disappeared under water amidship—I judge a foot and a half under water. When she came back to her normal draft, would it then, amidships, be 4 feet out of water?

Admiral CAPPS. The report of the draft of the vessel and the weights on board, etc., at the time the vessel left the navy-yard,

New York, N. Y., indicate that ships of the *Minnesota* class had, when they left Hampton Roads, at least 12 inches of the heavy armor above the water line, in spite of the large amount of excess stores, ammunition, water, etc., carried. It should be noted that the main water-line belt armor is 15 inches higher than the armor at the bow and stern.

Mr. LOUD. The projection did not show above water, however.

Admiral CAPPS. Were you looking at the painted water line, or the armor itself?

Mr. LOUD. I was looking at the projection of the armor.

Admiral CAPPS. Nevertheless, it is a fact, as shown by the actual report of the draft, etc., that the upper edge of the main water-line armor—that is, the heavy armor—must have been 12 inches above the water line with the vessel on an even keel, the upper edge of the armor at the bow and stern being practically just awash.

Mr. LOUD. I had it called to my attention as they were leaving.

Admiral CAPPS. Quite so; but mistakes are sometimes made, and it is possible that the vessel had a list toward the side you were looking at. There is a positive statement in an official report made to the Secretary of the Navy to the effect that the commanding officer of the *Connecticut* on July 8, 1907, stated that the main water-line armor of the *Connecticut* was 6 inches below the water line when the vessel was full of coal, stores, etc. As a matter of fact, even with the excess of stores carried when this battle ship left Hampton Roads, there was 1 foot of the heavy water-line belt still above water according to the official drafts reported when the vessel left New York. When the vessels of the Atlantic fleet left Hampton Roads their bunkers were full, they had their full allowance of ammunition in their magazines, and there were over 100 tons of extra ammunition for target practice alone on board some of them; there were also a large number of additional men with their necessary outfits; also additional stores, and, in some instances, several hundred tons of extra water for boilers in the double bottoms and trimming tanks. The condition of these vessels as to loading was therefore distinctly abnormal, and yet vessels of the *Connecticut* class had more than 1 foot of their heavy belt armor out of water.

Mr. LOUD. That is why I asked the question a few minutes ago as to what the difference of draft would be when they left port heavily loaded and what the normal draft would be when they were in ordinary condition.

The CHAIRMAN. I wish you would go into this whole theory of armor-belt protection in your own way and explain that to us, at the same time giving a little history of it.

Admiral CAPPS. It is rather an extensive subject, but I will try to be brief. The consensus of opinion among naval designers and those naval officers who have given very considerable attention to the subject appears to be that the lower edge of the main water-line belt armor at the designed load displacement should be immersed about 5 feet. It should be remembered that this is the immersion at the designed load displacement or trial displacement, as it is usually called in our service, and not the deep load displacement. This depth of submergence is, of course, more or less arbitrary and is based upon the amount of weight which can be devoted to armor protection and is governed to a certain extent also by the beam of the ship. The

subject of weight is a very serious one for naval designers, and the immersion of the lower edge of the armor belt has been limited to 5 feet not because that is ample, in the judgment of the designer, under all conditions, but because it is all that can be permitted under the allowance of weight for armor protection, and under ordinary conditions it should give ample protection. If the vessel were *very* light it would not give satisfactory protection under ordinary conditions of rolling, but that risk must be taken. When, on the other hand, the vessel is deep loaded the protection of the vessel under conditions of fairly heavy rolling is good, but even then a roll of 10 degrees would cause the *lower* edge of the armor to come out of water. It is thus obvious that protection of the water line is limited by the weight of armor which can be used for this purpose and is more or less a compromise.

Mr. BUTLER. Why do you want this protection below the water?

Admiral CAPPS. Because of the action of the sea. As the ship rolls, the armor tends to emerge. Moreover, in a perfectly smooth sea—and I can show you dozens of photographs illustrating this fact—the formation of waves at right angles to the line of travel of the vessel when going at high speed will cause an exposure of the side of the vessel, below the average water level, of 3 or 4 feet, and this in smooth water.

Mr. BUTLER. And when the ship rolls back, will it expose what we call the skin of the ship?

Admiral CAPPS. It is very apt to expose the skin of the ship. There will doubtless be many times during a naval action, in rough weather, when the bottom below the armor belt will be exposed; and while a hit at the water line or below the water line is apt to be rare (and this is the experience of all naval battles so far) such a hit must always do very serious damage when penetration ensues because there is a likelihood of hitting boilers or engines or magazines; and even if vital portions of the vessel are not struck, the vessel is much more easily flooded through an *underwater opening* in the bottom. It is thus apparent why *protection below the water* to a moderate extent is *relatively of far greater importance* than protection *above the water line*, and armor distribution is governed accordingly. In the case of the *Connecticut* class, for instance, the heavy belt is 9 feet 3 inches wide and extends, at designed displacement, from 5 feet below the water line to 4 feet 3 inches above. Above the main belt there are two other belts, the lower 6 inches thick, the upper 7 inches thick. For the *Vermont*, *Kansas*, *Minnesota*, *New Hampshire*, *Mississippi*, and *Idaho*, both upper belts are 7 inches thick. Moreover, the belt immediately above the water-line belt is reenforced by deep coal bunkers. In other words, a shot striking just above the main belt on the *Minnesota* would have to pass through 7 inches of armor, nearly 1 inch of structural plating, and then nearly 20 feet of coal, if the upper bunkers are full. This very substantial protection above the heavy water-line belt is usually entirely ignored by critics, although it is worthy of note that this *upper belt armor protection* of the *Minnesota* and class is as heavy or heavier than the *main water-line armor protection* of thirteen important battle ships in the *British navy built or purchased during the past ten years*. So far as concerns the intake of water, it must be remembered that a shot hole just above the water line can only admit small quantities of

water, which can easily be taken care of by the pumps or the water-tight subdivision of the hull; whereas damage below the water line, and especially below the protective deck, is much more serious, since water then flows in quite freely under a "head" and may easily be beyond the capacity of the pumps.

Mr. BUTLER. If a ship gets hit in here a foot or two above what is known as the water-line armor belt—

Admiral CAPPS. The heavy armor belt?

Mr. BUTLER. The heavy armor belt—suppose she should pitch enough to enable the ordinary sea to come in. Would that fill the ship and so expose the skin of the ship on the other side?

Admiral CAPPS. Hardly. With reasonably good pumping facilities it would take a long time to flood the spaces above the protective deck to such an extent as to materially affect the trim of the ship.

Mr. BUTLER. But suppose you did get enough to tip her over and endanger her. Would not the bottom of the ship be exposed on the other side?

Admiral CAPPS. Unquestionably, if you got enough water on one side.

Mr. BUTLER. I got that point from Captain Hobson the other day.

Admiral CAPPS. In this connection I would like to say right here that none of the allegations as to insufficient water-line armor have any bearing upon the *South Carolina* and *Michigan* and the *North Dakota* and *Delaware*, because the *upper belt* of those ships has a mean thickness equal to that of the *main water-line belt* of the *Minnesota* and class, being 10 inches thick at the bottom and 8 inches thick at the top; moreover, these vessels have a compartmental subdivision which will afford ample protection and stability even under conditions of serious underwater damage. Also, if compartments on one side of the ship are flooded, as Mr. Butler suggested a few moments ago, so that under ordinary conditions a change of trim of the ship would result, there would be no such continuing change of trim in these vessels, since complete arrangements have been made for flooding the opposite compartments and restoring the vessel to an approximate "even keel."

The CHAIRMAN. I wish you would explain the length of this armor belt; and also state how our distribution of armor compares with the distribution of armor on the British and Japanese ships.

Admiral CAPPS. The distribution of armor on ships of the same date, Japanese, English, and American, is very similar. The actual lengths of the belts on our ships have been calculated and are given in the table already alluded to. This sort of data for foreign vessels is not readily accessible, but we have fairly reliable information which has been gleaned from various sources, and, so far as our information goes, the armor protection of ships of the U. S. Navy is quite equal to and in many instances surpasses that of English and Japanese battle ships. In this connection, it may be noted with considerable interest that in the *South Carolina* class, which are vessels of nearly 2,000 tons less displacement than the British *Dreadnoughts*, the weight assigned to armor and hull is practically the same as that allowed for the *Dreadnought*. It is almost certain, therefore, that the armor protection of the *South Carolina* is superior to that of the *Dreadnought*. The armor protection of the *Delaware* is also superior to that of the latest British and Japanese battle ships,

so far as our information indicates. The armor protection of the *Minnesota* is very similar indeed to that of British vessels of the *King Edward* class. While the belt above the main belt on the *King Edward* is 1 inch thicker than the corresponding belt in the *Minnesota*, the *Minnesota's* main belt is 1 foot 3 inches wider than that of the *King Edward* and therefore there is 1 foot 3 inches more of the *Minnesota's* main belt out of water at the designed load displacement. Armor distribution, like other elements of war-ship design, is a compromise, but the fundamental principles which govern its location are the same in all cases and in all countries.

Mr. LOUD. May I ask the thickness of the main belt armor of the *Connecticut*?

Admiral CAPPS. The *Connecticut* and *Louisiana* are different from the other four vessels of the class. The thickness of the main belt armor of the *Connecticut* is 9 inches at the bottom and 11 inches at the top. But the other vessels of that class have a main water-line belt 9 inches in thickness throughout.

Mr. LOUD. And the *Minnesota* would have?

Admiral CAPPS. The *Minnesota*, the *Vermont*, the *Kansas*, *Idaho*, *Mississippi*, and *New Hampshire* have a 9-inch belt.

Mr. MUDD. Admiral, if it can be answered without involving too much repetition of what you have already stated I would like to have you answer this question: How far, if at all, is it true that the ships of the battle fleet of the United States are exactly in the same condition as the Russian ships at Tsushima—not temporarily, but permanently.

Admiral CAPPS. It is very difficult to compare our ships with the condition of the Russian ships at Tsushima, since it is doubtful if anyone has exact data as to the condition of the Russian ships when they went into action. From all accounts, official and otherwise, however, it is quite safe to assume that the main water-line belts of the Russian battle ships were under water. It is also evident from such testimony as we have that the Russian ships were not only carrying excessive amounts of stores, coal, etc., but that some of them had large quantities of water in their double bottoms. The condition of complete submergence of main armor belt was therefore, in all probability, one which could possibly have been avoided. In the case of our own battle ships, the upper edge of the main armor belt for vessels of the *Connecticut* class is more than 1 foot above water when all coal, stores, etc., and large amounts of excess ammunition, stores and water are on board. Other battle ships of the Atlantic fleet have the upper edge of main belt near the water line under similar conditions. But these conditions are clearly abnormal, are in no sense permanent, and statements to the contrary are false—no other term can properly characterize them.

Mr. MUDD. The criticism, I apprehend, then, is to some extent true that the Russian battle ships went into the fight at Tsushima with the belt-line armor underneath water?

Admiral CAPPS. From all accounts I should say that was very nearly true of the main belt armor, but it has no bearing on the actual condition of our ships.

Mr. MUDD. That fact, if true, did not arise from the construction of the ships?

Admiral CAPPS. No. The fact is that the writer of the article has made very grave misuse of words, and his alleged facts are frequently unsubstantiated opinions.

Mr. BUTLER. The gentleman who wrote the article under consideration is a painter, is he not?

Admiral CAPPS. An artist in color, I believe. I should also say that he was an artist in making erroneous and misleading statements, so far as one may judge by the statements made in the article referred to.

Mr. PADGETT. Admiral, I notice in this article this statement: "Of all our battle ships not one shows its main armor belt 6 inches above the water when fully equipped and ready for sea." Is that statement accurate?

Admiral CAPPS. That is nearer the truth than some of his statements, but even this is quite misleading. In the first place, it is misleading in that it is inferentially assumed that the battle condition is going to be that of the deeply laden condition. We have most eminent authority to the contrary, in fact. But, assuming that you may, by some rare chance, meet the enemy immediately after filling up with coal, stores, etc., you certainly would not be justified in taking or keeping on board large quantities of excess supplies, including hundreds of tons of water in double bottoms and elsewhere. As stated before, moreover, five of the battle ships now on their way to the Pacific coast have their main water-line armor belts more than 12 inches out of water even under *abnormal* conditions of loading, and in this respect probably excel any battle ships in commission in the British or Japanese navies, with the sole exception of the *Dreadnought*.

Mr. PADGETT. If you have time, the question I want to put is this: In the construction of the ship, and its plan of design for battle action, what is the line of the heavy armor above the water when the ship is in battle condition?

Admiral CAPPS. It is my desire to give the committee all possible information. In the first place, in time of war the ship must always be regarded as in battle condition. I mean, whatever condition the ship may be in she should be able to give a very good account of herself in action. If, however, you mean what would be the best condition in which the vessel could go into battle I should say, for the average battle ship, with about two-thirds of all stores, etc., on board and with about 900 tons of coal in her bunkers.

Mr. PADGETT. When the ship is in that condition what would be the height of the upper edge of the main armor belt above the water?

Admiral CAPPS. The designs of our battle ships, up to the *South Carolina* class, provided, under this condition, from 3 feet to 4½ feet of main belt armor above the water, dependent upon the class of vessel, the *Connecticut* class having the widest main armor belt of any of our battle ships now in commission. The *South Carolina*, *Michigan*, *Delaware*, and *North Dakota*, however, have the upper edges of their heavy armor more than 10 feet above the water line.

Mr. MUDD. Are our ships so constructed as to have that width of armor?

Admiral CAPPS. Yes, sir; We must not lose sight of the fact, however, as the critic apparently does, that the belt armor above the water-line belt is of great value. Above the main belt is armor from

5 to 7 inches in thickness (depending upon the particular ship). Moreover, damage to hull above the main belt is by no means so serious as damage below, for reasons already given.

The CHAIRMAN. That is, above the protective deck?

Admiral CAPPS. Above the main armor belt and above the flat part of the protective deck.

The CHAIRMAN. So there is practically nothing in the contention that our ships are all wrong in the location of their armor belts?

Admiral CAPPS. No. Such a contention is wholly unfounded in fact.

Mr. PADGETT. There is one other question I want to ask, Admiral, if you just bear with me for a moment. It was stated in this article—it is not before me here—that in the after part of the ship, after you pass the portion protected by heavy armor, there is a large part of the ship that is practically unprotected that could be pierced by almost any missile.

Admiral CAPPS. I know the point to which you allude. This criticism does not apply to the six battle ships of the *Connecticut* class nor to the *Idaho* and *Mississippi*; it does not apply to the five battle ships of the *Virginia* class, nor to the four battle ships of the *South Carolina* and *Delaware* classes now under construction. It does apply, in a most limited degree, to the three battle ships of the *Alabama* class, the three of the *Maine* class, and the *Kearsarge* and *Kentucky*. This is only another case of the inevitable compromise, however; there was just so much weight available for armor on the *Alabama*, *Maine*, and *Kentucky*, and it was distributed to the best possible advantage in the judgment of those responsible therefor. In other words, the particular places alluded to are on the superstructure just abaft the forward turret and just forward of the after turret and receive a large measure of protection from the turrets themselves. The board which passed upon the designs of these vessels, with full knowledge of all the facts, deemed it best to omit the armor from points that were otherwise fairly well protected and to apply the extra weight so gained where it would do the most good. Under certain conditions projectiles could easily penetrate that part of the superstructure, but it should be remembered that all of the superstructure armor is light and penetrable with ease by 8-inch projectiles. It only protects the secondary battery from the fire of secondary batteries of the enemy. Lately, when one of these ships was about to be overhauled, the matter was again considered, and it was unanimously decided that in view of past experience and recent developments in naval matériel it was quite useless to expend extra weight in extending the superstructure armor. Moreover, there has recently been made, by officers of high standing in their profession, objection to the use of any armor protection for the secondary battery of 5-inch or 6-inch guns.

Mr. PADGETT. Do you regard that portion of the ship as one that is subject to vital injury in battle?

Admiral CAPPS. Injury to that part of the ship would be by no means vital; it is high above the water. Should the secondary battery be manned, those in the immediate vicinity would of course be in danger; but they would also be in danger elsewhere if the superstructure armor was penetrated, and the superstructure armor, as I stated before, is only 5½ inches thick on the *Alabama* class and 6 inches thick on the *Maine* and *Kentucky* classes.

The CHAIRMAN. Are there any other questions upon the subject of the armor belt?

Mr. ROBERTS. Admiral, you have seen this picture in the article we have been considering, showing the *Mikasa* with a hole in the secondary armor?

Admiral CAPPS. Yes.

Mr. ROBERTS. And you will notice the statement there that this ship would have sunk had the sea been heavy. With a hole of that size, located as it is there, would the ship sink?

Admiral CAPPS. With a hole located as that appears to be it would be a very easy thing to make temporary repairs with canvas, collision mats, or otherwise.

Mr. ROBERTS. But suppose you could not get the canvas over it. Would that necessarily sink the ship?

Admiral CAPPS. Not at all. It would take a long time, if the pumping appliances were reasonably good, before sufficient water would get in to sink the ship.

Mr. ROBERTS. Was that wound above the protective deck?

Admiral CAPPS. Apparently it was, if the photograph is a correct indication of the facts.

Mr. ROBERTS. It is said to be.

Admiral CAPPS. If that is a photograph of the ship itself, it indicates a very unusual result of gun fire. I have attended a great many armor tests—in fact, all of special importance, as affecting hull protection, that have taken place at Sandy Hook and Indian Head during the last four years, and very many before then. I can say, therefore, from personal knowledge, that 6-inch armor (the thickness of the upper belt of the *Mikasa*) does not go to pieces in the manner indicated in the photograph, even when attacked by 12-inch shell. It looks much more like the opening which would be made in the *thin side plating* by a large projectile exploding at time of impact.

The CHAIRMAN. What is the name of that vessel, the *Mikasa*?

Mr. ROBERTS. The *Mikasa*. It states: "This drawing was made by the author from a Japanese war photograph taken immediately after the battle of Round Island, August 10, 1904. The hole in the secondary armor of the ship was made by a 10-inch shell. The ship would have sunk had the sea been heavy."

Admiral CAPPS. I shall not dispute the author's statement as to the manner of making the drawing and the source from which he obtained the photograph. I do dispute, however, the allegation that such results would ensue from attacking 6-inch armor with 10-inch projectiles.

Mr. ROBERTS. It shows what is apparently a mattress being lowered.

Admiral CAPPS. Yes; it also looks very much to me like a photograph of a sketch.

Mr. ROBERTS. It is a drawing made from a photograph. It was rumored about the time we first knew of the *Dreadnought* that the English had commenced extending their armor under the water farther than they had ever done before. Do you know whether that is true or not? I mean under the water toward the keel.

Admiral CAPPS. There are various and seriously conflicting reports as to the depth of the *Dreadnought's* armor below the load water line.

The best information obtainable, however, is that the lower edge of the *Dreadnought's* armor is about 5 feet below the *designed load water line* (which means the water line when the ship has only 900 tons of coal on board, the bunkers holding 2,700). There is very excellent ground for the belief, however, that the *Dreadnought* was over her designed draft more than a foot. In fact, a recent London paper placed it at 3 feet, but that I believe to be a great exaggeration. There is given in the Naval Pocket Book, the naval annual founded by the late Sir William Laird Clowes, a statement that the armor is 7 feet below the water line. There are other statements, photographs, and published sketches, however, which indicate that the depth of submergence of the lower edge of the *Dreadnought's* main armor belt is between 4 and 5 feet at the *designed* load draft. So I should say the *designed* depth of submergence of main belt, with 900 tons of coal on board, was somewhere about 5 feet, since nearly all British battle ships, after the time of the *Royal Sovereign*, had an immersion of lower edge of main belt armor of about 5 feet at designed load displacement.

Mr. ROBERTS. Is this armor which is under water designed in any way to resist torpedo attack?

Admiral CAPPS. No; so far at least as concerns the ordinary water-line belt armor. Torpedo attack is likely to come much lower down, and, so far, the tendency in our service, also in the British and Japanese navies, as far as I am aware, is to rely largely upon compartmental subdivision of the hull structure, which is probably the most reliable defense possible against torpedo attack. For instance, in our latest battle ship there are four water-tight skins between the boilers, etc., and the sea. Also numerous athwartship water-tight bulkheads.

Mr. ROBERTS. What would be the effect if you had armor down where you would expect a torpedo attack?

Admiral CAPPS. If you had armor on the outside of the ship, a thin armor belt, the chances are that a large area would be crushed in, even larger than if you had no armor at all, unless the armor was thick enough and its supporting structure rigid enough to absolutely resist the force of the explosion.

Mr. ROBERTS. And what thickness would do that?

Admiral CAPPS. The thickness would have to be so great that there would be little weight left for guns, machinery, and other essentials. Its weight would, in my opinion, be prohibitive.

Mr. ROBERTS. Can you give us some idea in inches or feet?

Admiral CAPPS. That can not be stated definitely.

Mr. ROBERTS. In other words, then, it is absolutely impracticable to armor below water against torpedo attack?

Admiral CAPPS. It is quite impracticable to cover all of the under-water surface of a battle ship with armor of sufficient thickness to absolutely resist torpedo attack. And there is information just at hand that the Navy, which formerly used this method of protection, has now abandoned it.

Mr. HOBSON. Can you build a structure that would hold up such armor?

Admiral CAPPS. Yes; if there were no limitation on size of ship and other qualities were sacrificed. Under normal conditions of size and weight available, however, as I have stated, it would be imprac-

ticable; the tendency of torpedo explosion would be to crush in large areas of such thin armor as could be provided.

Mr. ROBERTS. You spoke sometime ago about the distribution of armor on the *Royal Sovereign* and her class. Has there been any change in the English navy since that time, in their theory of armor distribution?

Admiral CAPPS. So far as can be judged by their designs, the distribution of armor on later British ships has been a development of that first adopted on the *Royal Sovereign*. Every single ship of which we have data up to the time of the *Dreadnought* has from 5 feet to 5 feet 6 inches of the main water-line-armor belt below water at the designed load draft of the vessel, and it is well to remember that this degree of immersion of the lower edge was considered, at the time of the *Royal Sovereign* design, as little as could be permitted with prudence. The recent attacks on the matériel of the American Navy have been from the opposite quarter; it has been alleged, in substance, that we placed *too much* armor below the water line.

Mr. ROBERTS. Has there been any change in the thickness of the armor?

Admiral CAPPS. There have been many changes, in all services.

Mr. ROBERTS. It has increased, has it not?

Admiral CAPPS. No; the tendency has been to decrease the thickness of water-line armor and increase the thickness of the upper belt. You know the resisting quality of armor has also improved very much. The 9 inches of face-hardened armor of to-day is about as effective as the 18-inch compound armor of the *Royal Sovereign's* time.

Mr. DAWSON. In our newest ships, what is the average difference in thickness of the main armor belt and the next belt above it?

Admiral CAPPS. Just 1 inch. A very small difference indeed. If we had had ample weight at our disposition we would have made the upper belt thicker, but the extra weight was much more advantageously utilized elsewhere; incidentally, the upper belt armor of the *South Carolinas* and *Delawares* is thicker at the bottom than the main water-line belts of all the British ships which followed the *Royal Sovereign* except the *Lord Nelson* and *Dreadnought* classes.

Mr. PADGETT. How high does the upper belt extend above the water line?

Admiral CAPPS. More than 10 feet above the normal water line, and 8 feet or more above the deep-load water line.

Mr. BUTLER. And it is 8 inches thick?

Admiral CAPPS. Eight to 10 inches thick on the *South Carolina*, *Michigan*, *Delaware*, and *North Dakota*.

I would like to say now, if the chairman will pardon me for a moment, that I am at your disposal now or at any other time, and if you can not get all the information you desire to-day I can come before you to-morrow or at any other time.

(The committee thereupon adjourned until to-morrow, Wednesday, January 22, 1908, at 10.30 o'clock a. m.)

THE COMMITTEE ON NAVAL AFFAIRS.

Wednesday, January 22, 1908.

The committee this day met, Hon. George E. Foss in the chair.

STATEMENT OF WASHINGTON LEE CAPPS, CHIEF CONSTRUCTOR AND REAR-ADMIRAL, CHIEF BUREAU OF CONSTRUCTION AND REPAIR—Continued.

The CHAIRMAN. We will proceed with the subject-matter under discussion when the committee adjourned yesterday.

Admiral CAPPS. With your permission, Mr. Chairman, I desire to make brief allusion to the most important conclusions whose truth was so fully demonstrated yesterday, especially with respect to freeboard and water-line distribution of armor as determined by officers in our own Navy, the British Board of Admiralty, and distinguished officers of the British navy.

It was shown at some length that the *Royal Sovereign*, which is more or less a typical ship, had a freeboard of 18 feet to 19 feet 6 inches, as stated by the designer, Sir William White, in a paper read before the Institution of Naval Architects in April, 1889; also a distribution of water-line armor which involved a submersion of the lower edge of the belt armor 5 feet 6 inches at designed load draft, leaving 3 feet of the heavy belt armor above the water at designed load displacement, at which displacement there was 900 tons of coal on board.

It was also demonstrated conclusively by documentary and other evidence that the designs of the *Royal Sovereign* class had been determined upon only after the most exhaustive consideration by the British Board of Admiralty and by distinguished officers of the British navy. I also made allusion to the fact that in the United States Navy there had been various boards, exclusive of the board on construction, which had considered battle-ship designs, and that one board in particular, convened by the Secretary of the Navy in March, 1896, under the presidency of the late Rear-Admiral John G. Walker, U. S. Navy, had gone at length into the general question of battle-ship design, and had stated the seagoing requirements of battle ships and the proportion of coal, stores, etc., which should be on board when the vessel was in the best condition for battle.

Allusion was also made to the fact that in more recent times, in our own Navy, a board, whose opinion in such matters should be treated with the greatest consideration by everyone, and especially the seagoing element of the service (being composed wholly of seagoing officers and under the presidency of Admiral Dewey), had stated, in an official report under date of October 17, 1903, this statement being reaffirmed subsequently, that battle ships should have certain characteristics, among others "a high freeboard forward," adding that "in this respect, the *Iowa* type impresses favorably;" the "freeboard forward" of the *Iowa*, be it understood, is a little less than that of any of the battle ships now in the Atlantic Fleet, with the exception of the *Kearsarge* and *Kentucky*. This same board also stated specifically that an armor distribution in general conformity with that previously adopted for the *Maine* would be desirable for the new battle ships. After discussion, however, the General Board

entirely modified its views as to armor distribution, and concurred in the recommendation submitted by the board on construction as to the greater desirability of the armor distribution on the *Vermont*. Moreover, as a matter of fact, with the sole exception of the *New Hampshire*, which is of the *Vermont* class, the battle ships of the United States Navy designed during the past four years have had *greater armor protection* than the *Vermont* class.

It was also pointed out that the various features of American battle ships had, since 1889, passed under the immediate supervision of the board on construction, and that all matters relating to freeboard, armor distribution, magazine arrangements, turret ammunition hoists, etc., had been known, considered, and approved by seagoing members of that board. The names of the seagoing and other naval officers who have been members of this board since its inception were given during yesterday's hearing, among them being easily recognized those of some of the most distinguished officers of our Navy. Therefore when our critics of the present day make sweeping and unqualified statements in condemnation, not only of the policy of the United States Navy of to-day, but also that of many preceding years in our own and some of the principal foreign navies, they must not be surprised to find themselves in a very weak and insignificant minority and to be classed with those whose information is superficial and imperfect and who have made no serious attempt to increase their knowledge of subjects upon which they give such definite opinions with such complete and reckless irresponsibility. There have also been prepared, as previously noted, for the information of the committee, cross sections of typical American, British, French, Russian, German, and Japanese battle ships, indicating the freeboard and the distribution of the armor of the vessels as designed; also profiles of the same ships, indicating the elevation of the guns, freeboards, etc. So far as concerns battle ships of the American Navy, the data is absolutely exact. So far as concerns vessels of foreign navies, the plans have been based upon information of a very reliable character, gleaned from every available source. The authorities consulted were given in yesterday's hearing.

With respect to those battle ships of the Japanese navy which took part in the battle of the Sea of Japan, it is of very great interest to know that the particulars with respect to those ships appeared in great detail in an exhaustive article prepared by the director of naval construction of the Japanese navy for presentation to a technical society in Japan. This article was subsequently translated and published in a well-known London engineering paper.

With respect to some other foreign battle ships whose particulars are given in the plans of cross sections and profiles, the information is quite accurate, and for all the rest every effort has been made to obtain the most complete and reliable information. And after examination and comparison of the armor protection, freeboard, heights of battery, etc., of our own and typical foreign battle ships it is very gratifying to be able to state (and I am not at all responsible for any of the ships indicated in the plans, except the *Delawares* and *South Carolinas* and the *New Hampshire*) that our battle ships are not only equal to, but, in my judgement, rather better than foreign battle ships of the same period of design.

As a matter of general interest to the committee, there have also been prepared tables giving particulars of the various Russian and Japanese ships which took part in the battle of the Sea of Japan, and how they fared in that battle; also complete details of our own battle ships, including heights of freeboard, gun axes, etc., and distribution of armor. I may also note right here that the reference in the article we were discussing yesterday to the alleged fact that all of our broadside guns were so low that they could not be fought in any seaway and that the broadside guns of foreign ships were two and three times as high is either false or else misleading, since it can only be made true by comparing the heights of the lowest guns in our ships with the heights of the most elevated guns on foreign ships, the height of the lowest tier of the broadside secondary battery guns of all of our battle ships being from 14 feet to 15 feet 2 inches above the designed load water line instead of 11 feet, as stated in the article. As a matter of fact, 11 feet more nearly represents the *deck height* and not the *gun height* of the *lower tier* secondary battery guns.

Mr. ROBERTS. When you speak of the deck height you mean the protected height?

Admiral CAPPS. No, sir; I mean the height of the deck on which the gun is mounted. Guns mounted 14 to 15 feet above the designed load water line would be on the gun deck. Guns on the next deck above would be about 22 feet above the designed load water line. In some French ships the secondary battery mounted on the highest deck would have a gun height above the water line of about 36 feet; but in the same ships the height of the guns on the lowest deck would be only 11 feet above the water line. The misinformed critic in this statement, as in many others, has made most improper and unfair comparisons. If a supposedly well-educated technical man should make such comparisons, his reputation for knowledge and veracity would suffer severely; for an artist, however, the "license of the brush" must be considered in extenuation, I presume.

Criticism, as we all know, is desirable and helpful when undertaken by those who have intimate knowledge of the subject and make their criticisms openly and fairly and through proper channels with an evident desire to build up and not destroy. I know of no case in which careful consideration has not been given to such criticism; but it is also evident that those who criticise openly and over their own signatures must ultimately stand sponsor for their statements and must accept full responsibility therefor.

Attacks of the kind which have recently been made on our naval matériel are made periodically, not only in our own service, but in those of nearly every other naval power. The British navy has had just as much of it as any other navy, and, judging by newspaper comment and the proceedings of some of their technical societies, probably a little more even than our own. In Brassey's Naval Annual of 1904 there is an exceedingly interesting article prepared by Sir William Henry White, a most eminent naval architect, who for nearly twenty years was director of naval construction of the British navy and who now, though on the retired list, takes an active interest in professional work and was the principal consulting naval architect in the preparation of the designs of the *Mauretania* and *Lusitania*.

In the article referred to Sir William, after briefly reviewing the "principles and methods of armor protection in modern war ships,"

in which he alludes to some of the discussions and criticisms of British naval matériel, he makes the following comments:

I trust that the time may never come when designs of the ships of the Royal navy will be largely influenced by the remarks of amateur critics, imperfectly informed as to what is involved, and judging the merits of designs simply or chiefly by what naval architects have been able to accomplish on reputed or tabulated displacement tonnages. Repeatedly and publicly I have expressed the opinion that something much larger is involved in these debates than the credit or discredit of a particular naval architect. My belief is that when working under the same conditions of speed, coal endurance, offense, and defense the skill and inventive power of naval architects in this and other countries, applied to a particular problem at a given date, will almost always result in the production of vessels of practically identical displacement. When extraordinary results are said to be achieved on relatively small displacements, and certain features have been unusually developed in a design, it is well to inquire closely, What has been sacrificed as compared with other designs?

The foregoing comments are applicable to much of the foreign and domestic criticism which has been recently directed at the thoroughly well considered designs of American and foreign battle ships.

Mr. DAWSON. What is the caliber of those guns which are mounted on the French ships 11 feet above the water?

Admiral CAPPS. Six and four-tenths inches. I explained yesterday that the French School of Design for many years has tended toward elevated emplacement of the main and portions of the secondary battery and complete water-line belt armor protection; but they have had to sacrifice to a definite degree stability under damaged conditions, and the more complete protection given by British, American, and Japanese designs to their turret foundations, ammunition hoists, etc.

Mr. PADGETT. You were speaking a moment ago, Admiral, of criticism, and welcoming criticism from intelligently informed sources. I notice in the Washington Post of January 21, 1908, a publication: "May warn navy officers—President displeased at criticism of battle ship fleet—Example likely to be made of prominent officer if discussion is not stopped." I want to inquire if there is any truth in the statement or insinuation there made that officers of the Navy are not to be allowed honestly and intelligently to express any opinion or criticism which they may entertain, and if the Navy is to be held down by orders and their honest opinions suppressed?

Admiral CAPPS. Of course I would not presume to speak for anybody but myself in these matters, and I should be loath to have considered as accurate everything which appeared in the public press concerning naval matériel or naval policies; but, in order entirely to disabuse the mind of any gentleman present of the idea that the Department is reluctant to receive or consider criticism, I beg to refer you to two general orders, one issued in 1898, just after our war with Spain, and another issued by the present Secretary of the Navy in 1907.

In the order of November 7, 1898, there was contained a specific direction to all officers who had served on board ships during the war with Spain to make reports in detail as to the operation of all parts of the ship and her fittings, etc. There was thus afforded the most perfect opportunity to submit report and criticism concerning every portion of the ship and its fittings. This order was as follows:

Commanders in chief of stations, commandants of stations, and commanding officers of vessels acting singly will direct those officers under their command who served on board ship during the present war to make reports in detail as to the operation

of all parts of the ship and her fittings, her armament, her equipment or equipments, as were under their charge or came under their immediate observation. These reports are to be made in detail, a separate report in regard to the matter coming under the cognizance of each bureau concerned. They must cover specifically with respect to each fitting or appliance, machine, or gun with which they deal:

1. The good points.
2. The bad points, defects, or breakdowns.
3. Suggested improvements.

These reports are to be forwarded to the Department through the Bureau of Navigation.

The above order was issued at the direct instigation of the Bureau of Construction and Repair, and that Bureau expected to receive a substantial amount of helpful and other kinds of criticism of its work as a result. The following quotation from the report of the Chief of the Bureau of Construction and Repair for the fiscal year 1899 shows the result:

In response to Special Order No. 79, the Bureau has been furnished with a large mass of criticism and comment as to matters under its cognizance. This criticism is the result of experience under war conditions of seventy-five officers and covers twenty-five vessels of various classes. Its independent nature and wide range, when taken in connection with the knowledge gained from the condition of the vessels on their return to the various yards, have made it of sufficient value to warrant here a brief mention of the most important points touched on.

With regard to the strength, stability, seaworthiness, and maneuvering powers of the vessels of the various classes, the war experience tended to confirm the favorable opinions previously arrived at, and the general success of the designs in these respects may be said to be thoroughly demonstrated.

Turning now to the question of detail, the comment and criticism naturally centered on such features as were most intimately connected with war service, and which were, under the conditions, severely and thoroughly tested.

The various engagements afforded ample tests of the arrangements installed for the supply of ammunition to the batteries, and the Bureau is gratified to be able to state that these portions of this important feature under its cognizance have given very general satisfaction.

More recently—on June 20, 1907—the Secretary of the Navy issued General Order No. 49, which was as follows:

The necessity for mutual effort toward improvement being greater than ever before, the Department invites officers to submit suggestions which in their judgment would tend to promote the efficiency of the naval service. The suggestions should be concerning things or methods and not a criticism of persons, and should in all cases be accompanied by a well-digested scheme for improvement.

The Department will refer these suggestions to competent authorities for consideration and recommendation. When suggestions of an officer are approved and recommended to the Secretary for adoption, an entry to that effect will be made on the officer's record and the officer notified to that effect.

The above order is quite self-explanatory and is, in effect, a most cordial invitation to submit criticism, the only limitation being that it should be well considered and should deal with facts and things and not with men and methods. Under this invitation many suggestions and criticisms have been received, some of them carefully considered, others quite the reverse. It is obvious, however, that any criticism, to have value and to receive proper consideration, should be made squarely and fairly through proper channels and after some degree of careful investigation and personal experience on the part of the critic.

Mr. PADGETT. I knew in a general way of the orders that had heretofore been issued. What I want to know is whether there has been any change of policy or whether there is any suppression now of criticism; and if there is none, I want it officially stated and to go into the hearings.

Admiral CAPPS. I think it is perfectly obvious that anybody who has anything proper to say can say it with perfect freedom *now* as *formerly*.

Mr. LOUD. In the press or to the Department?

Admiral CAPPS. To the Department.

Mr. PADGETT. What I would like to know is whether or not there is any disposition to suppress just and proper criticism of the Navy?

Admiral CAPPS. So far as I am aware, not the slightest.

Mr. LOUD. Criticism, where?

Mr. PADGETT. Anywhere that the public may be taken into the confidence.

Admiral CAPPS. So far as I am aware, the Department is decidedly interested in receiving careful, well-considered, and honest criticism of anything in the naval service, especially when it is coupled with recommendations for improvement which evidently bear the impress of careful thought, consideration, and knowledge of the subject in hand.

Mr. HOBSON. Can you state whether or not there is a disposition to grant authority to officers to present fully views bearing on criticism to the Society of Naval Architects and Marine Engineers and other scientific bodies when they have their meetings and through them to open to full discussion by the public?

Admiral CAPPS. For very many years the Department permitted the preparation of papers with plans and data very completely descriptive of the ships of the Navy, these papers being presented for discussion before the Society of Naval Architects and Marine Engineers. The published proceedings of this society are in most large libraries, and they are otherwise readily accessible. The membership of the Society of Naval Architects and Marine Engineers includes the majority of the prominent naval architects and engineers of this country, also many from foreign countries, and a large number of officers of the United States Navy. The meetings are quite open to the public and anybody can attend and participate in the discussion, and usually, where personal attendance is impracticable, written communications covering the subjects discussed are welcomed and are afterwards incorporated in the printed proceedings of the society.

Mr. DAWSON. The public could buy the reports?

Admiral CAPPS. Yes, sir.

Mr. MUDD. You spoke in the past tense?

Admiral CAPPS. The custom of preparing and presenting such papers descriptive of our battle ships obtained up to about six years ago and the papers contributed up to that time included general plans and descriptions of every battle ship now in active service, including those of the *Connecticut* class.

Mr. MUDD. Has there been any change of policy since that time?

Admiral CAPPS. During the past six years the Department has not permitted the publication of such complete details as heretofore with respect to its matériel for reasons which, after careful consideration, appeared to be for the best interests of the Navy. But it is quite obvious that the designs which have lately been subjected to such criticism were given wide publicity at the time of their completion and were most favorably commented upon both in this country and abroad.

Mr. HOBSON. Has the change in policy in any way affected the legitimate opportunities for scientific criticism?

Admiral CAPPS. No.

Mr. ROBERTS. I notice that this order of November 7, 1898, seems to be limited in its scope to inviting criticisms concerning the ships engaged in the Spanish war. Was that order taken in the service since that time as a general invitation to officers to send in any legitimate criticisms they may have?

Admiral CAPPS. That order was issued immediately following the completion of the Spanish war when everything of a favorable or unfavorable character was fresh in officers' minds, and was intended to obtain for record the actual experiences of our officers with our naval matériel during the period named.

Mr. ROBERTS. The object was to get all the information they could about defects, etc.?

Admiral CAPPS. Yes, sir; about conditions then existing. The very points now being brought up could easily have been raised concerning the ships then in commission. In fact, the *Indiana*, *Massachusetts*, and *Oregon* have from 8 to 10 feet less freeboard forward than any battle ships attached to our battle ship fleet, with the exception of the *Kearsarge* and *Kentucky*. The ammunition hoists installed on those vessels and the *Iowa*, the *New York*, and the *Brooklyn* were similar to those so severely criticised recently, but they *did not have* the safety automatic shutters now installed. The efficiency and extent of the armor protection of the water line of our later battle ships is also greatly superior to that of the *Oregon* class, and yet serious adverse criticism does not appear to have been made in response to the order of November 7, 1898.

Prior to and since the Department's special order of November 7, 1898, officers have had and have exercised the right to submit, over their own signatures, reports concerning the character or behavior of ships under their command or any part of naval matériel which came under their observation, and many communications of this character have been received and have been considered.

General Order No. 49, of June 20, 1907, was really a cordial invitation, subject only to the very reasonable condition clearly set forth in the order. Although many communications have been received in response to this invitation, the majority of those which affect matters under the jurisdiction of the Bureau of Construction and Repair are, I am sorry to say, of little value, having been obviously not well considered, or else relating to subjects with which the officers submitting the criticism were not entirely conversant.

After all, complete and extensive training and experience are requisite in order that the battle-ship designer may produce a satisfactory design of battle ship; and, while the expert artilleryman, engineer, and seaman should be freely consulted and their views concerning their specialties given most serious and careful consideration, the naval architect, in the last analysis, must inevitably bear the heaviest burden of responsibility for success or failure of the design as a whole. Such is the history of design not only in our own but in foreign navies, and the unfortunate naval architect is often unjustly blamed for incorporating in his design the too strenuously enforced ideas of those whose "intentions" were doubtless good but whose insufficient knowledge and experience in battle-ship design rendered the utiliza-

tion of their "ideas" hazardous to say the least. In this connection it must not be forgotten that the American naval constructor receives the same academic training as the seagoing officer of the line, including courses in ordnance, gunnery, seamanship, and engineering; also, in addition to practice cruises while at the Naval Academy, he usually spends two years in seagoing vessels of the Navy subsequent to graduation and *then*, after being specially selected on account of the high average of his attainments, is afforded opportunity to take a complete course in naval architecture—all this preparation taking place before *beginning* his actual professional work as an assistant naval constructor in the Navy. If, therefore, with his large subsequent experience, he fails to bring to his professional work as a naval constructor adequate knowledge of the needs of the naval service, it can not possibly be for lack of proper preparation.

Mr. ROBERTS. I understood you to say that last year an order was issued covering the subject of suggestions or criticisms by line officers. Is that in your report?

Admiral CAPPS. I referred to General Order No. 49 and stated that, in reality, it was an *invitation* to submit criticism. A copy of this order will accompany the revision of my testimony (this order has already been quoted). In the report of the Secretary of the Navy (p. 31) for the fiscal year ending June 30, 1907, there also appears, under the caption of "The methods of designing naval vessels," the following language:

"From time to time, in the public press, and even among naval officers, criticism is made concerning our naval matériel. Investigation has almost invariably developed the fact, however, that such criticism is based largely upon misinformation, and in most cases rests upon the attempt to compare the designs of ten or more years ago with what might have been accomplished had the designers of the earlier period been able to anticipate and take advantage of all subsequent developments in naval matériel. Criticism of this character is unfair, without resultant advantage, and may be dismissed without comment.

Another species of criticism occasionally heard is worthy of more attention. It is the suggestion that seagoing officers do not have enough to say in the construction of vessels of the Navy. If such officers were in any way ignored in this matter the situation would be grave. But it is not the fact. On the contrary, the Department has earnestly desired to avail itself of their valuable practical experience, and, accordingly, June 20, 1907, by General Order No. 49, a formal invitation was addressed to all officers of the service, asking them to submit suggestions which, in their judgment, would tend to promote efficiency; and the assurance was given that such suggestions would receive consideration, and that, if they were approved and recommended for adoption, an entry to that effect would be noted on the record of the officer who made them. The only limitations placed upon this invitation were, first, that the criticisms should concern methods and not persons; and, secondly, that they should be accompanied in all cases by a well-digested scheme of improvement.

The object of this order was clearly to give the Department the benefit of the experience of officers in all branches of the service. Nevertheless, it was well understood that all suggestions could not be adopted; that there would be differences of opinion; and that, ultimately, there must be some established method of sifting the wheat from the chaff. A responsible court of reference was, therefore, absolutely indispensable. So far as concerns all matters relating to the design of ships, their armament, armor protection, motive power, equipment, etc., the Department has, in the board on construction, a logically constituted "board on design." The individual members of this board are distinctively representative men in the several branches of their profession, and have under their immediate control officers specially selected from the service, having to do with matériel in all its varied forms. Moreover, the nature of their administrative duties is such as to keep them constantly informed regarding developments in matériel, not only in our own but in foreign services; and, finally, they bring to their exacting duties as members of a board on design large experience, definite knowledge, and conservative judgment, coupled with a sense of the crucial responsibility resting upon them for the success of the completed ships when fully

equipped. The Department, therefore, relies with confidence upon the determinations of this highly competent board for the final arbitrament of technical questions relating to the matériel of the Navy.

I again invite attention to the fact that General Order No. 49 was an *invitation*. Both before and since the issuance of this order, however, the right of criticism and recommendation was absolutely unquestioned and frequently exercised.

Mr. ROBERTS. Will you please put in the record a copy of General Order No. 49?

Admiral CAPPS. I will. (Order previously quoted.)

Mr. HOBSON. Instead of this policy to-day tending to suppress and discourage criticism, I would like to ask whether, as a matter of fact, the inviting of it and placing it on the officer's record does not create an incentive to criticise?

Admiral CAPPS. It does, unquestionably.

Mr. HOBSON. And gives him precedence and prestige?

Admiral CAPPS. Unquestionably, if his criticism is timely and valuable; and that fact is clearly indicated in the order.

Mr. ROBERTS. Why was it deemed necessary or expedient to issue that invitation; was it because of criticisms in the papers that officers had no opportunity to present this information, or was it because of complaint in the service that officers did not have the opportunity, or their criticisms were not considered when presented?

Admiral CAPPS. You must address that inquiry to the Secretary of the Navy, because I did not know anything about the order until it was printed. In its practical application there are definite and obvious disadvantages, for the simple reason that many people have a much higher opinion of their technical ability and knowledge than is warranted by the facts. Many officers apparently have ample time to write and make suggestions—much more time in fact than the highly trained and experienced officers who must give their suggestions consideration. But the time expended in the consideration of such suggestions is not in the slightest degree unwillingly accorded, provided the suggestions are clear-cut, apt, and evidently the result of experience and careful thought.

Mr. ROBERTS. You say that you do not know why this order was issued. Do you know of your own knowledge whether there have been complaints from officers in the service that their suggestions have not been considered—have been pigeonholed?

Admiral CAPPS. There has doubtless been some complaint of that character. As a general rule, in all walks of life, those whose ideas are not followed are apt to complain to some one or other. However, official complaint, if any has been made, has not been brought to my attention so far as I can now recall.

The CHAIRMAN. We will pass on to some of the other criticisms. I wish, Admiral, you would take them up, as you have them in your mind.

Mr. ROBERTS. Please take up the ammunition hoist.

Admiral CAPPS. That is a question which could best be considered by that branch of the Navy Department which is especially charged with the design and construction of turret ammunition hoists, these appliances being under the cognizance of the Bureau of Ordnance, the installation only being under the cognizance of the Bureau of Construction and Repair. Of course all structural work on the

vessel connected with the installation of turret ammunition hoists, including adaptation of the hull structure, turret, etc., to the particular type of hoist supplied by the Bureau of Ordnance is also under the Bureau of Construction and Repair. While I could possibly satisfactorily answer your question, it seems to me more appropriate, if I might so suggest, that information concerning turret ammunition hoists could be more satisfactorily obtained from the Bureau charged with such matters.

Mr. ROBERTS. I understood from your talk yesterday that a plan had been adopted for some specific change in the present system of ammunition hoists, and you were describing to us how the present hoist was arranged, what safeguards there were put in, and I understood you were going to tell us what was proposed to be done to correct the conditions.

Admiral CAPPS. The meaning I desired to convey was that plans for a different type of hoists were now under consideration with a view of permitting the hull structure to be adapted to a two-stage type of turret ammunition hoist, and that a change in type of turret ammunition hoists had been under consideration for some time past by the Bureau of Ordnance.

Mr. ROBERTS. The Bureau of Ordnance would not go on and design plans for ammunition hoists without consulting you?

Admiral CAPPS. Certainly not, so far as concerns matters in which the Bureaus of Construction and Repair and Ordnance are mutually interested. We are in constant and daily consultation on all such matters.

Mr. ROBERTS. You know what they have in mind?

Admiral CAPPS. I do; not only that, but the two Bureaus have to cooperate to the fullest extent in all such matters in order to get satisfactory results. There are eight types of battle ships to be considered, and in order to get the most efficient and economical arrangement on the ships now built the proposed changes must be thoroughly considered for each one.

Mr. ROBERTS. In a general way, what change will be made? You spoke of an interrupted hoist.

Admiral CAPPS. The essential difference between the ammunition hoist as now installed in the turrets of our battle ships and those proposed to be installed is that instead of the ammunition going directly from the magazine handling room to the breech of the gun it goes from the handling room to a platform located at some convenient stage between the magazine handling room and the turret chambers. At this intermediate platform it is transferred laterally and is placed in another hoist, by which it is carried to the breech of the gun. This is called the "two-stage" or "interrupted-hoist" system. In other words, instead of one direct and continuous hoist, there are two shorter hoists entirely separated from each other. At first thought, one might say that such a system was essentially much safer than the direct hoists; in fact, entirely safe. As a matter of fact, however, as I told you yesterday, and as the records of investigations indicate, not one of the disastrous accidents we have had in turret chambers through the ignition of powder charges before entry into or just after entry into the guns resulted in a magazine explosion; and only in one instance was powder in the handling room ignited through burning grains falling from the turret chamber into

the handling room, and subsequent to this particular accident automatic shutters were installed which separated the turret chamber from the handling room, such shutters having previously been ordered or provided for in the specifications of battle ships under construction.

Mr. DAWSON. Which explosion in the handling room was that you referred to?

Admiral CAPPS. The *Missouri*. In the "interrupted hoist" system, if it is assumed that there will never be any ammunition accumulated in the intermediate handling room, and also that rigid precautions are taken so that the upper hoist is always empty until the previously hoisted charge has been inserted into the chamber of the gun, and the breech closed, and also that there is no accumulation of ammunition in the lower hoist, or handling room—then, of course, there is a very complete isolation of the turret chamber; in practice and under service conditions, however, it will be impracticable to obtain the required speed of supply of ammunition to the turret, unless the next round of ammunition is at the bottom of the upper hoist, by the time the preceding charge is being loaded into the gun. It is, also, most probable, in order to obtain adequate speed in supplying ammunition to the turret guns that it will be necessary to have a considerable supply of loaded and fused shells in the turret chamber itself, or in the intermediate handling room. In other words, it will really be a case of transferring a substantial part of the contents of the magazine from its completely protected location below the water line to a higher and more vulnerable level.

I have been informed by a most competent and experienced ordnance expert, one who has given the subject of turret ammunition hoists much consideration, that, in his judgment, turret hoists as now installed in our battle ships are not only as safe, but possibly safer than the "interrupted hoist" system (so much in favor among critics), when the "interrupted hoist" is being operated at highest speed not only under the conditions of target practice, but, also, those of battle, if anything like the speed of supply of ammunition usually required during target practice should be attempted.

Mr. BUTLER. This subject has been heretofore considered?

Admiral CAPPS. Yes, sir; very often.

Mr. BUTLER. It is not new?

Admiral CAPPS. No, sir.

The CHAIRMAN. Please tell us what sort of hoists the other navies have in their ships and what they are using to-day?

Admiral CAPPS. The majority of 12-inch turrets in the British navy are, I believe, fitted with interrupted hoists.

The CHAIRMAN. Which navies?

Admiral CAPPS. The British navy and, so far as I am aware, the Japanese navy have both types. I am also informed by high authority that all British armored cruisers have turret ammunition hoists direct from the handling room to the turret chamber.

Mr. ROBERTS. How about the French?

Admiral CAPPS. The French began with the continuous hoist and still have it on many ships, I am informed, although it is of a different type from ours. Some of their latest turrets may have the interrupted hoist.

Mr. ROBERTS. Why did they make the change?

Admiral CAPPS. I can not tell you offhand.

I would like the committee to realize that in naval design there is more or less constant change of opinion about matters that affect the general efficiency of a ship; but they are often merely "changes of opinion" and not always warranted by actual change in conditions. As to the present safety of our turret ammunition hoists it must be remembered that there are automatic shutters between the turret chamber and the magazine handling room; also water-tight doors separating the magazines from the handling rooms. As I told you yesterday, excessive zeal for speed caused these shutters when first installed to be triced up out of the way on some of the vessels to which they were fitted, and it required a departmental order to enforce their proper use.

Mr. ROBERTS. Can you tell us what the ammunition-hoist arrangement on the *Royal Sovereign* was?

Admiral CAPPS. As I recall it, the ammunition hoist on the *Royal Sovereign* was somewhat of the interrupted-hoist type. The *Royal Sovereign* had the earlier type of barbette mount, however, and some ammunition was undoubtedly carried in the barbette.

Mr. ROBERTS. The *Royal Sovereign* had an interrupted hoist?

Admiral CAPPS. In a sense, yes; but as actually arranged, if ammunition was carried in the barbette, it had much graver disadvantages than our direct hoists of to-day.

Mr. ROBERTS. When was the attention of your Department called specifically to what was deemed a defect in the ammunition hoist?

Admiral CAPPS. There have been reports concerning turret ammunition hoists as far back as 1901, so far as I can now recall.

Mr. ROBERTS. Did those suggestions come through officers in the service?

Admiral CAPPS. Yes, sir; through officers in the service.

Mr. ROBERTS. The matter has been under consideration?

Admiral CAPPS. The matter has been considered over and over again.

Mr. ROBERTS. If I understood your answer some time ago, you are perhaps of the opinion that the straight ammunition hoist is safer?

Admiral CAPPS. I said that I had been informed by a most competent ordnance expert that the turret hoists of our ships were quite as safe under the actual conditions of service.

Mr. ROBERTS. Will you give us your opinion?

Admiral CAPPS. In such matters I prefer deferring to the judgment of those who are going to control the use of such appliances on board ship, but so far as I can determine the relative safety of the two types I believe that under the actual conditions which would prevail in service the turret hoist we have to-day, as fitted with automatic shutters, would be just as safe as the interrupted hoist.

Mr. ROBERTS. Then why do you make a recommendation for \$750,000 for a change in the ammunition hoist?

Admiral CAPPS. Because a board of turret officers appointed by the Secretary of the Navy reported that, in their judgment, an interrupted hoist, such as that provided for the *Delaware* and *North Dakota*, was preferable and should be installed. The Department approved the recommendation of this board and directed the bureaus concerned to take the necessary steps to carry it into effect. The Bureau of Ordnance, under whose cognizance comes the subject of

turret ammunition hoists, informed the Bureau of Construction and Repair officially that it intended, as soon as practicable, and as soon as the vessels were available, to install "two-stage" or interrupted ammunition hoists in the turrets of all battle ships, armored cruisers, and monitors, and requested the Bureau of Construction and Repair to take such action as might be necessary to provide the necessary funds to make the structural changes consequent upon such proposed changes in turret ammunition hoists.

Mr. ROBERTS. This recommendation does not come through your initiative?

Admiral CAPPS. It does not. It comes in the manner just indicated.

Mr. DAWSON. Is it proposed in this two-deck hoist to carry the ammunition up in a trunk, so that each shell will be protected as it goes from the handling room?

Admiral CAPPS. There will be two trunks. The first one goes from the lower or magazine handling room to the upper platform or intermediate handling room; it is then transferred horizontally to the upper hoist and then goes to the turret chamber itself.

Mr. DAWSON. Is the charge protected from sparks until it is inserted into the guns by means of the trunks; are they separated?

Admiral CAPPS. The trunks are separated.

Mr. DAWSON. Is not that the way it is handled now?

Admiral CAPPS. It is now handled in an ammunition car which goes direct from the handling room to the breech of the gun. The car passes through an opening in an intermediate platform, this opening being closed automatically after the car passes.

Mr. DAWSON. This criticism points out that our ammunition goes from the handling room up to the breech of the gun apparently absolutely unprotected, while in the hoists and turrets of foreign navies the charges are transferred in a trunk which protects them against sparks. Is that a fair comparison of the actual condition?

Admiral CAPPS. It is not. In the turret ammunition hoists of our battle ships there is practically complete separation by means of automatic shutters between the turret chamber and magazine handling room. Also the ammunition car itself affords some protection to the inclosed ammunition. Also the ammunition hoist, turret supports, and all turret mechanisms are protected from the turret floor to the protective deck by means of armored barbettes, thus making the protection of ammunition hoists, turret supports, etc., against the effects of an enemy's fire distinctly superior to that of the French battle-ship turret.

Mr. HOBSON. We still use the long copper tank to carry the charge?

Admiral CAPPS. In the magazine, yes. That tank does not go in the hoist with the charge, however. The charge is removed from the copper tank while in the magazine, then passed through a scuttle in the magazine door (which scuttle is automatically closed by a flap), and then placed in the carrier of the ammunition car, which is itself fairly well closed in and protected from falling sparks or burning grains of powder.

Mr. DAWSON. A trunk—

Mr. ROBERTS. That corresponds to the trunk in some other navies?

Admiral CAPPS. No; it is a direct but uninclosed hoist with separating platform between handling room and turret chamber. I under-

stood Mr. Dawson to be referring to a continuous ammunition trunk from handling room to turret.

Mr. DAWSON. A trunk that inclosed the powder, so that no sparks could get at it in transit.

Mr. ROBERTS. In the interrupted hoist we are proposing now, is the ammunition on a continuous carrier from the magazine to the gun?

Admiral CAPPS. There will be two carriers.

Mr. ROBERTS. Two carriers? It is interrupted absolutely, not only by going along laterally on one deck, but by being taken off one carrier and put on another?

Admiral CAPPS. The passage from handling room to turret is completely interrupted, two hoists being employed in the transfer of the ammunition from the magazine to the turret chamber.

Mr. ROBERTS. Does the shell come up through the same hoist as the powder?

Admiral CAPPS. By the same hoist.

Mr. ROBERTS. On the same carrier?

Admiral CAPPS. On a section of the same car; but the "two-stage" or interrupted hoist system, for greatest efficiency, involves the storage of a considerable supply of shell at the base of the upper hoist or in the turret chamber itself.

Mr. LOUD. The shell and powder are transferred from one carrier to another.

Admiral CAPPS. Yes; they are transferred from the lower to the upper hoist.

Mr. LOUD. The powder is not taken off, and the shells are not taken off the carrier, but the carriage itself is moved over?

Admiral CAPPS. No. In the interrupted hoist, it is necessary to remove the charge from the carriage of the lower hoist and actually transfer it to another carrier in the upper hoist. You have two distinct hoists and two distinct carriers in the interrupted hoist system.

Mr. LOUD. On the hoist you have a carriage on which you convey the ammunition?

Admiral CAPPS. Yes. In the turrets of our battle ships there are two continuous hoists from the handling room to the turret—one for each of the turret guns. The ammunition car is loaded in the handling room, which is adjacent to the magazines, and is then hoisted on its continuous rails until the section of the car containing the projectile is opposite the breech of the gun. The projectile is then rammed into the breech of the gun. After this, each section of powder is rammed home. As before stated, the automatic shutters close as soon as the car passes up or down and thus effect practically complete separation between turret and magazine handling room. With the interrupted hoist, the first or lower hoist brings the ammunition up to the intermediate handling platform. It is then transferred to the ammunition car of the upper hoist, which carries it to the breech of the gun; from that time on, the operation of loading is completed in the manner just described for the continuous hoist.

Mr. LAMAR. Where it is transferred on the interrupted hoist does that work automatically or does it require men?

Admiral CAPPS. It requires men.

Mr. ROBERTS. Please give us some information concerning that portion of the criticism relating to turret ports.

Admiral CAPPS. The turret ports specifically spoken of were apparently those of the *Kearsarge*. Here, again, improvements in matériel have greatly modified the earlier arrangements of gun mountings. The turret gun mounts of the *Kearsarge* were the first in our service which involved the use of the spring recoil system, which was the very latest thing in gun recoil systems. In locating and installing the four cylinders containing the recoil springs much greater space was required for the gun mount than was formerly necessary, and the trunnions of the guns were located some little distance from the turret port plate, which in the case of the turrets of the *Kearsarge* (as in practically all turrets up to that date) was curved and not flat as in later vessels. This obviously necessitated a much greater vertical height for the turret port opening, in order to get the requisite elevation and depression of the gun, than would have been the case if the trunnions of the guns could have been placed closer to the front plate of the turret. But, so far as I am aware, similar conditions prevailed in foreign turrets which had the same type of gun mounting, especially French ships of that date.

Mr. ROBERTS. Does that apply just to the *Kearsarge* or to the *Kearsarge* type?

Admiral CAPPS. To the *Kearsarge* and *Kentucky*, the only ones of that class. In later designs the ports have been decreased in size to the fullest extent permissible with the type of gun mount used, and I believe that the gun ports of our later ships are no larger than those of contemporaneously designed foreign battle ships. In later designs, we have still further increased the protection of the interior of turrets by inserting shields inside the gun ports.

Mr. ROBERTS. The *Kearsarge* has changed the recoil system of her guns?

Admiral CAPPS. No; but for ships designed since the *Kearsarge* there has been provided a more satisfactory arrangement of gun mounting.

Mr. ROBERTS. To-day there is no necessity by reason of the type of gun on the *Kearsarge* and her class to have those large openings?

Admiral CAPPS. The large openings on the *Kearsarge* are necessary so long as that vessel has her present type of gun mounts. In other words, there has been great development in the character of gun mounts since the *Kearsarge* guns were installed, but the *Kearsarge* mounts still require the openings originally provided.

Mr. ROBERTS. The guns now on the *Kearsarge* can be operated with a smaller turret port?

Admiral CAPPS. Yes; but only in the event that you had an entirely new mount; but that of course would involve very extensive alterations, and the vessel would have to be placed out of commission.

Mr. ROBERTS. Have they changed the mount?

Admiral CAPPS. No, sir.

Mr. ROBERTS. For the advantageous handling of the present gun and mount we must still have the same size turret opening?

Admiral CAPPS. Yes. The gun mounts on the *Kearsarge* can not be changed without involving extensive changes in the turret.

Mr. HOBSON. Does the shield you have placed on the inside of turrets come close to the turret wall?

Admiral CAPPS. It is just as close to the turret wall as it can be placed without fouling the turret wall when the gun is elevated or depressed.

Mr. HOBSON. Could you place it on the outside of the turret?

Admiral CAPPS. That scheme was fully considered and rejected, first, because it entirely changes the balance of the gun, and second, because it is more apt to damage the gun if struck by a projectile.

Mr. LOUD. Are the turret ports in English ships smaller than in the *Kearsarge*?

Admiral CAPPS. Those of later ships; yes. But the earlier English gun mountings were on the barbette principle, and it was only in more recent years that the English barbette mounting with "gun house" has closely approached our "turret" arrangement.

Mr. LOUD. The size of the turret ports in our later ships is larger or smaller than the English?

Admiral CAPPS. Just about the same, I should say.

Mr. LOUD. The criticisms in the magazine articles have already been corrected?

Admiral CAPPS. In designs subsequent to the *Kearsarge* the turret ports are smaller and as small as the mounts will permit. The criticism of the gun ports of the *Kearsarge* class is, however, most exaggerated, since the port opening could not possibly be "10 feet square;" such an area would include both gun ports and the greater part of the port plate, and is obviously a gross error.

Mr. ROBERTS. There is a further mention in the article about an opening for the broadside guns?

Admiral CAPPS. The broadside gun ports of our battle ships are very similar to the broadside ports of vessels of the same date in other navies.

Mr. ROBERTS. Are they larger?

Admiral CAPPS. The size of broadside gun ports is absolutely controlled by the amount of train, elevation and depression of gun required, and the proximity of the pivot of the mount to the side of the ship. The port opening is made just as small as possible after providing for the necessary elevation, depression, and train. In foreign navies, the size of port opening is controlled by identical conditions, so that there can hardly be any great variation in size.

Mr. LOUD. Have you put shields on broadside guns?

Admiral CAPPS. In some cases; yes. I can give you a rather interesting bit of information concerning the variation of sentiment as to the value of shields on broadside guns. In some public comment, I do not recall just where now, it was stated that the officer in command of one of our battle ships, through personal influence, succeeded in having shields put on his broadside guns; also that this grave defect had not previously been noted.

The Bureau of Ordnance, which authorized and installed the 6-inch gun shields of the vessel referred to, also installed shields on the corresponding guns of other ships of the same class. In due course of time the commanding officer first referred to was detached and another commanding officer assigned. Within a very short time the new commanding officer made formal request of the Bureau of Ordnance to land his 6-inch gun shields and put them in the storehouse. The commanding officer of one of the sister battle ships (there were only three) took the matter in his own hands, dismounted the shields and stored them in the hold ready for use by his successor if he should, perchance, prefer shields. At the present time there are many who advocate no armor protection whatever for the sec-

ondary battery guns, those holding such opinion contending that it is safer to give the shell free entry and possibly thus prevent its bursting than have its course interrupted by a shield or light armor, thus insuring its bursting and doing much greater damage. It is thus quite evident that, so long as individual officers have individual opinions, there can scarcely be unanimity of sentiment upon any important question concerning which there is reasonable opportunity for difference of opinion.

Mr. ROBERTS. If I recall, there is a still further criticism with regard to the manner in which the secondary batteries of our ships are installed—that is, on the broadside, with no armor to keep a projectile from coming in fore or aft?

Admiral CAPPS. I presume you refer to the alleged absence of screen bulkheads. As a matter of fact, every battle ship of the United States Navy since the *Iowa*, and including every battle ship in Admiral Evans's fleet, has screen bulkheads between the guns of the secondary battery.

Mr. LOUD. What thickness?

Admiral CAPPS. They are from an inch and a half to 2 inches thick.

Mr. LOUD. That would not keep out heavy shot?

Admiral CAPPS. It will prevent the fragments of a bursting shell from entering adjacent gun compartments. In fact, experience indicates that transverse screen bulkheads 1½ inches thick will confine the fragments of a 12-inch shell which has been exploded in a casemate with screen bulkheads of such thickness.

Mr. HOBSON. Suppose the projectile had come in at high velocity, how many screen bulkheads would have stopped the projectile's flight?

Admiral CAPPS. The screen bulkheads are of no use in stopping a large projectile or considerable fragments of such projectile when traveling in the line of flight of the projectile. To install thin screen bulkheads for such a purpose would be useless.

Mr. ROBERTS. There is no effort to prevent the projectile itself from coming in except by means of the armor?

Admiral CAPPS. The outside armor is the principal protection of the gun and gun's crews.

Mr. ROBERTS. Armor to prevent a projectile coming in fore and aft?

Admiral CAPPS. There are usually armor bulkheads at forward and after ends of superstructure of same thickness as the side armor. Possibly you are alluding to a small unprotected area of superstructure bulkhead just forward of after turret and just abaft the forward turret on vessels of the *Kearsarge*, *Alabama*, and *Maine* classes. That matter was gone into fully yesterday. I then stated that in order to distribute the weight of armor at their disposal to the best advantage the board of officers responsible for the designs of those ships apparently considered it advisable to take the remote chance of a projectile coming in at those particular points, since the areas in question were fairly well protected by the turrets. In vessels designed during the past nine years, however, the superstructure armor has been made continuous. It is especially worthy of note, however, that in discussing our most recent designs there was a strong tendency among well-informed officers to omit all armor protection for the secondary battery, on the principle that since it is quite impossible to give such a battery adequate protection against guns of 8-inch

caliber and above, it would be wiser to omit all armor protection for such portions of the battery and to apply the weight so saved to more completely protect other portions of the hull.

Mr. ROBERTS. As I understand the criticism it goes a little further. It says, as I recall it, that foreign navies are installing secondary guns so that the guns themselves have adequate armor protection, and that one of the defects in our ships was the installing of guns in the manner you have described.

Admiral CAPPS. Curiously enough, the Americans took the lead in giving effective armor protection to guns of the secondary battery (if we treat as secondary battery all guns less than 10 inches in caliber), the 8-inch turrets of the *Indiana* class, being among the earliest of their kind. The French and Russians extended the turret style of mount to their 6-inch guns. The English, Americans, and Japanese have continued to mount their 6-inch guns in broadside. It is obvious, then, that the method of mounting the secondary battery is only another one of those matters of opinion in which there is always ample argumentative ground.

Mr. ROBERTS. Coming back to the *Kearsarge*, there are five of those ships?

Admiral CAPPS. No; only two.

Mr. ROBERTS. What you were saying in regard to turret ports applies to this class?

Admiral CAPPS. There are only two in the class, the *Kearsarge* and the *Kentucky*.

Mr. HOBSON. Do your remarks apply to the *Alabama* class?

Admiral CAPPS. They do not; not in so great a degree, at least.

Mr. ROBERTS. The *Kearsarge* and *Kentucky* are in a class by themselves?

Admiral CAPPS. They are.

Mr. ROBERTS. What would it cost to change the mounts of those guns and reduce the size of the turret ports on those ships?

Admiral CAPPS. If anything whatever was done toward changing the turret mountings of the *Kearsarge* and *Kentucky*, I would recommend nothing short of an entirely new turret and a new arrangement of gun mounting. The *Kearsarge's* and *Kentucky's* turrets and mountings are not up-to-date and should be completely rebuilt when the vessels are laid up for a general overhauling.

Mr. ROBERTS. How much would that cost?

Admiral CAPPS. It would be quite expensive. For armor, guns, mounts, and structural work, I should say possibly \$800,000.

Mr. ROBERTS. For each ship?

Admiral CAPPS. Yes, sir.

Mr. HOBSON. Would it not be practicable to simply remove the front armor plate and replace it?

Admiral CAPPS. No, sir. The *Kearsarge* and *Kentucky*, as you recall, have the superimposed turret arrangement. They were the first designs of that kind in our service. The weight of the upper turret is utilized in counterbalancing the whole turret structure, and the front plates of both upper and lower turrets are vertical and have curved surfaces instead of being inclined and having flat surfaces as in recent designs. New mounts and guns in the lower turret would be advisable, and the upper turret should be removed if entirely satisfactory results are to be attained.

Mr. ROBERTS. Right on that point, the *Alabama* class, do they have superimposed turrets?

Admiral CAPPS. No.

Mr. ROBERTS. They have a turret, but it is different?

Admiral CAPPS. Yes; entirely different.

Mr. ROBERTS. Would it not be feasible to take off the superimposed turret on the *Kearsarge* and *Kentucky* and put on the type of the turret on the *Virginia*?

Admiral CAPPS. The *Virginia* also has superimposed turrets. So far as I am aware, opinion is wholly against superimposed turrets at the present time, and successive chief constructors have persistently and continuously opposed such a type of turret installation from the very beginning.

Mr. ROBERTS. The Department to-day would not recommend superimposed turrets?

Admiral CAPPS. So far as I am aware of the views of the Department, that type of turret mounting is wholly out of favor.

The CHAIRMAN. The superimposed turrets was a recommendation of the seagoing officers?

Admiral CAPPS. It was, as fully set forth in the last annual report of the Chief of the Bureau of Construction and Repair.

Mr. ROBERTS. To change the turret system on the *Kearsarge* and *Kentucky* and to put on a new turret would involve a structural change in the hull of the ship?

Admiral CAPPS. It will involve a very considerable change in the structural arrangements of the ship, including an entirely new turret structure.

Mr. ROBERTS. Serious changes?

Admiral CAPPS. Serious changes. As stated, there would be extensive changes in the hull structure and a new turret structure, with a rearrangement of magazine stowage if the best results were to be attained.

Mr. ROBERTS. Getting at the element of cost, what would that be?

Admiral CAPPS. About \$400,000 for each turret; \$800,000 for each ship.

Mr. ROBERTS. That would be outside?

Admiral CAPPS. I should say so.

Mr. ROBERTS. Admiral, have you ever heard in any official way, or in any unofficial way, any statement from line officers that they put up some canvas and painted it to simulate armor on some of our ships on a foreign station, because they did not want the foreigners to see that certain parts of the ship were not armored?

Admiral CAPPS. I think some allusion was made to such an incident in an official communication, but I am not positive. The first time I ever saw it unofficially was in the magazine article heretofore alluded to. It may or may not have happened. I do not know from personal knowledge whether it did or not.

The CHAIRMAN. There appear to be no further questions from members of the committee concerning alleged defects in our battle ships.

Admiral CAPPS. In this connection I desire to repeat my former statements that any information in the possession of the chief constructor with respect to our battle-ship designs, or criticism thereupon, is at the disposition of the committee, and I hope they will call upon me for any further information which may be desired.

APPENDIX ACCOMPANYING HEARING OF THE CHIEF OF THE BUREAU OF CONSTRUCTION AND REPAIR BEFORE THE COMMITTEE ON NAVAL AFFAIRS, HOUSE OF REPRESENTATIVES, IN RELATION TO ALLEGED DEFECTS IN DESIGN OF UNITED STATES BATTLE SHIPS.

N. B.—The following extracts from foreign publications are submitted without comment and merely as indicating European opinion with respect to some typical designs of United States naval vessels:

Extracts from a paper contributed to the proceedings of the Institution of Naval Architects (London) in 1891, on "Some Recent Warship Designs for the American Navy," by J. H. Biles, subsequently professor of naval architecture at the University of Glasgow, and extracts from the discussion on the above-noted paper.

Extracts from the French annual "Les Flottes de Combat," 1907, and the English annual "All the World's Fighting Ships," edition of 1905-6 and edition of 1907.

Also, a few extracts from foreign periodicals commenting on various designs of vessels of the United States Navy, as follows:

Engineering of March 26, 1907, in relation to the designs of the *Alabama* class.

Engineer of June 14, 1901, in relation to casemates and the attitudes of the British, French, Japanese, and Italian services with respect thereto.

Engineer of July 12, 1901, giving a comparison of the qualities of various foreign vessels and United States vessels of the *New Jersey-Virginia* class.

Engineer of December 27, 1901, containing further comments concerning vessels of the *New Jersey*, *Virginia*, and *Connecticut* classes.

TRANSACTIONS OF THE INSTITUTION OF NAVAL ARCHITECTS, 1891.

"SOME RECENT WARSHIP DESIGNS FOR THE AMERICAN NAVY."

By J. H. BILES.

Referring to the earlier protected cruisers, Mr. Biles says:

The American ship designers and builders have shown that they are capable of producing vessels quite equal to their promises, and at least equal to the best European practice.

* * * (Referring to the *New York*.) Compared with the *Edgar* class, this vessel is much more powerfully armed and much better protected. Her sustained sea speed will probably be greater. She is, however, 800 tons more displacement and should, therefore, be a superior vessel. * * * *The coast line battle ships (the Indiana, Massachusetts, and Oregon are the most important vessels of this programme. * * * They have been designed "to be able to fight vessels carrying the heaviest guns and armor," and by inference comparison with our most recent battle ships can not fail to be courted. * * * The armament of these vessels seems to be more powerful than that of any European battle ships, there being four guns capable of piercing any armor afloat, and eight 8-inch guns capable of penetrating almost any armor, and certainly of penetrating the armor at the ends of the belts and on the barbettes and redoubts of most of our battle ships at close quarters.*

Of course, in order to attain this result something has had to be sacrificed; or, rather, something is not existent in these ships which exists in the larger ones. The speed estimated compared with our latest battle ships is probably about $1\frac{1}{4}$ knots less. The coal supply is 500 tons less.

The breadth of the armor belt is 1 foot less, but it is as wide as that of the *Admiral* class, which has not the advantage of the 5-inch belt above.

As these vessels will probably have to act very much nearer their base than European vessels, their bottoms will probably be in better condition, so that the real speed would not be much, if any, less. For the same reason their coal supply need not be so large, and, therefore, it would seem that their preponderance of armament would give them an advantage in a combat near their own coast line with any European vessel. *They are distinctly superior in most respects to any European vessel of the same displacement, and, for the purpose intended, of protecting the American coast line, they seem to be quite a match for any ships afloat.* They can keep the sea as well as any battle ships and must not be looked upon as coast-defense vessels in the ordinary restricted sense, though they are called coast-line battle ships. Compared with the *Admiral*, their free board at the ends is 15 inches higher, and compared with the turreted battle ship *Hood*, it is practically the same. It is, however, 8 feet less forward than the barrette battle ship of the *Royal Sovereign* class. Judging by the amount of water which will

come on board the Atlantic liner with a free board forward of 26 feet, the chance of fighting the 31-inch turret guns end on in a head sea is not very great, but the 8-inch guns could probably be fought in almost any weather. * * * In maneuvering power this ship will be superior at her normal load draft to the *Royal Sovereign* class on account of her less length and draft.

DISCUSSION ON THE ABOVE PAPER.

By Admiral, the Right Honorable Sir John Hay, K. C. B., D. C. L., F. R. S. (vice-president).

I think, my lord, this paper is rather an eye opener. * * * In Mr. Biles's statement I think he indicates that the United States are now becoming a great naval power and that they are beating us in speed. Speed is of very great consequence, and that is exactly what the United States did some seventy years ago. While we were supposing ourselves to be the first naval power of the world, they built a certain number of very large ships and captured all the frigates which were supposed to be their equals, except in one or two famous actions. * * * I think the fact that the United States is coming back again into the range of great naval powers * * * makes it necessary that she should be considered in all the estimates of naval power which we have hitherto been conducting rather with reference to our possible European relations.

By Admiral A. F. R. De Horsey, K. C. B. (associate):

* * * I am glad to see that our friends across the Atlantic, with their great cleverness, stick to water-line protection. * * * Any damage above the water line, however much the ship may roll, may probably be temporarily repaired; but there is a poor chance of dealing with injury below the water line.

By Mr. W. H. White, C. B., F. R. S. (Vice-President):

* * * The facts * * * show that in America the reconstruction of the Navy has been undertaken in a most businesslike manner. Our friends there * * * at first * * * did not produce rival designs, but obtained from this country designs and working drawings for ships and engines. * * * The first result at which they aimed has been most satisfactorily achieved. Ships are now afloat built in the States from designs acquired here which compare favorably with ships of the same date built in this country. * * * Having got through that stage of progress, the Americans are undertaking designs of their own. * * * As regards the freeboard in the battle ships and the heights of the guns above the deck and above water, Sir Nathaniel Barnaby has well said that there is an essential difference between the *Admiral* class in the royal navy and the new American naval vessels. * * * There are, however, ships like the *Nile*, *Trafalgar*, and *Victoria*, where the speed is practically the same, and the freeboard is about the same as the Americans contemplate. The general feeling of naval officers * * * is, however, in favor of our later practice in the *Royal Sovereign* class. * * * The new vessels are, it is true, called "coast-defense vessels" in the official programme, but we are also told that they have a coal supply, or rather a bunker capacity, * * * that would give them the power to go almost anywhere that other battle ships could go. With bunkers filled * * * the thick armor would be about on the level of the water line. That is a matter calculated upon and accepted by the designers as a feature which they do not object when the bunkers behind the 5-inch armor are full of coal. We have ships which come into the same class. I do not myself see the least objection to filling up the bunkers—they exist—but I think that what needs to be clearly understood is that the nominal speeds of which we have heard are associated with a certain weight of coal in the ship and not with the condition of full bunkers. So long as there is such a clear understanding no harm is done.

LES FLOTTES DE COMBAT, 1907.

This annual contains references to various United States vessels, as follows:

Iowa.—"May be compared to the *Carnot*."

NOTE.—*Carnot* laid down, 1891; completed, 1896. *Iowa* laid down, 1893; completed, 1897.

Kearsarge and *Kentucky*.—"The superimposed turrets offer certain advantages in simplicity of working and saving of weight, but if the turning axis is displaced (or

the thinner upper turret disabled) one-half of the battery is out of action. The secondary battery is well protected and the speed is sufficient for a battle ship. Everything on this slightly modified *Iowa* has been installed in as simple and practical a manner as possible. The main battery has been reduced in favor of the secondary, which will perhaps be slightly restricted as to arcs of fire. On the other hand, the protection has been considerably improved and the armor belt extends to the stem."

Alabama.—"If we compare this class with the preceding one, we see that much attention has been paid to the protection and that the gun positions will be habitable during action. Speed is not increased. In America this is considered as a secondary factor for battle ships. * * * The *Alabama* type is preferable to the *Majestic* from every point of view. While it has as much free board, it is on less draft and displacement. It has more armor and armament and a speed approximately equivalent."

NOTE.—*Majestic* laid down February, 1894; *Alabama* laid down December, 1896.

Connecticut.—"These battle ships, which are a reply to the British *King Edward VII*, are better protected than the latter for the same displacement, and, in particular, are more heavily armed."

New York.—"This cruiser, which was a complete success, was in advance of all others built at the same time and still holds a good place among them."

Brooklyn.—"Her sponsons are excellently arranged and the forecastle at a height of 10 meters makes her superior to most cruisers now afloat. She could fight in any weather. Her protection is more than adequate."

Tennessee.—"These vessels, which much resemble the English *Drake* as to their general arrangement, speed, and displacement, have, however, the advantage of a complete belt. Their main battery is just double that of the *Drake* and they have two more 6-inch guns and eight 3-inch. They are inferior to the English *Duke of Edinburgh*."

Jane's Fighting Ships (ed. 1905-6, p. 380).

To the United States belongs the credit of being the first nation to sanction that battle ship with a uniform armament of big guns, which * * * has hovered on the horizon of the building programmes of most of naval powers. * * * In large cruisers no departure is being made. The *Washington*, which is the most powerful armored cruiser afloat, is the standard model, so far as can be gathered. * * * No cruisers of moderate dimensions are contemplated. *The American ideal that every ship is to be the best possible of its class being faithfully adhered to.*

Jane's Fighting Ships, 1907—Preface.

Few, if any, ships are likely to be built in the future which can not use all guns on either broadside. * * * *America in the South Carolina led the way in this direction, and the ship of the future is bound to be some improved variation of her.*

Certain tables upon page 433 are a new feature. * * * These tables omit all ships projected under 1907-8 programmes. Such figures would slightly increase United States superiority in long-range attack. The extraordinary high figures for United States ships afford food for considerable thought, *for both in ships with high-powered guns or impervious to vital injury at long range the United States fleet is superior to any other navy in the world.* Even by the inclusion of 40 caliber (12-inch) of types extinct so far as new ships are concerned the United States of America is an extremely good second and the corresponding lead in invulnerability outside 7,000 yards is considerably increased.

EXTRACTS FROM TABLES REFERRED TO.

(a) Ships with high-powered guns. Number of ships able to attack outside 7,000 yards:

	British.	United States.	French.	German.	Japanese.
6-inch Krupp armor.....	56	34	28	13	21
9-inch Krupp armor.....	30	22	17	3	14
11-inch Krupp armor.....	7	10	10	3	8

a Includes three protected cruisers.

(b) Ships impervious to injury at long range. Number of ships whose water-line belts are safe outside 7,000 yards against—

	British.	United States.	French.	German.	Japanese.
Modern 9.2 to 10 inch guns.....	35	33	38	28	15
12-inch 40-caliber.....	8	24	22	12	5
11-inch 50-caliber.....					
12-inch 45-caliber.....		8	1		1

NEW WAR SHIP CONSTRUCTION.

The *Dreadnought* herself was found to have certain minor defects. * * * Her fighting power has, however, probably been overestimated. There is very little reason to believe that she is "equal to two *King Edwards*," despite her undoubted belt superiority. * * * An extremely important point about a battle ship, recognized far more fully in the United States than anywhere else, is embodied in the following observations of Mr. Robinson, of the United States Construction Board:

"The writer is of the opinion that at some periods in all services too much consideration has been given in design to the development of characteristics tending to efficiency in individual ship action to the detriment of a corresponding efficiency in squadron or fleet action. This has doubtless been due to lack of proper knowledge available as to squadron or fleet maneuvers, a knowledge recently much augmented by the naval maneuvers conducted by the different countries and by the experience gained in the Spanish-American and Russo-Japanese wars. The attainment of the desired results in the *South Carolina* and *Michigan* could only be reached from a most careful consideration of all questions and the elimination of such features as were considered least tending to fighting efficiency under the conditions in which they might naturally be called upon to act. These considerations led to the arrangement of battery shown in the belief that broadside fire through a considerable arc from bow to stern was of vastly more moment in fleet action than volume of fire ahead or astern. It seems to be generally conceded that this deduction is correct."

The merit or otherwise of the *Dreadnought* depends upon the sort of fleet unit that she makes. * * * The United States 1906-7 programme embodied * * * a development of the *South Carolina* and having ten of her 12-inch on the broadside should be considerably superior to the *Dreadnought*. * * * The *South Carolina* and *Michigan* * * * are * * * characteristically American.

There is room for considerable doubt as to whether the upper big guns can fire over the lower turrets without putting the latter temporarily out of action, but the ships have probably been unduly criticised because of this. Any arrangement that permits of all guns being used on either broadside is open to some kind of criticism. For broadside fire the American ships seem very well adapted, and that, rather than the "four guns and on," was the chief thing aimed at by the designer. The alternative method of securing this result, as in the *Inflexible* type of cruiser, while superior for end-on fire on paper, is inferior in the matter of actual broadside discharge, since one turret has to fire over the decks, a thing for one or two reasons open to criticism. * * * Discussing the paper of Mr. Robinson already referred to, the *Engineer*, London, said:

"It is almost an axiom in Europe that in the United States they are not very particular what a war ship is so long as she 'whips creation' on paper. Those who hold this view will find their faith severely shaken by the singularly able paper of Naval Constructor Robinson already referred to. The opinions expressed are understood to be those of the Bureau of Naval Construction, to which Mr. Robinson belongs."

Mr. Robinson begins with the *Indiana* and tells us, what few of us have realized before, that that ship was designed as a "coast defender" pure and simple; hence, many of her obvious defects, when regarded as a battle ship of ordinary type. She is, as a matter of fact, merely a monitor of large size and large secondary armament. The *Iowa*, says Mr. Robinson, was an attempt to turn the *Indiana* into a seagoing ship. Then he traces the course of the modern American Navy, with many candid admissions as to the difficulty before naval architects. Quite a formidable one, he says with emphasis, is the modern demand for increased comfort aboard, bathrooms, etc. Without any beating about the bush, the author describes these as peace-times attributes and shows that on a given displacement every comfort means a corresponding loss of efficiency. These comforts are demanded and they must be supplied, but they have to be paid for somewhere in the total displacement. Of course this is a truism, but Mr. Robinson has been the first to tackle it boldly. The American Board of Construc-

tion apparently intend to oppose, so far as may be, the combined hotel and war ship ideal, which in some navies has made so much headway of late.

It is not necessary to follow Mr. Robinson through his review, * * * except to here note * * * the constant call upon naval architects to provide for fresh necessities, such as improving coaling facilities, storage of high explosives, and so on. * * * As we have already mentioned, the popular idea is that in America they do not bother much over these things. After reading Mr. Robinson's paper, we are driven to suspect that no other nation bothers so much. * * * Thence he proceeds to the *South Carolina* and *Michigan*, in which both cost and displacement were fixed before the naval architect commenced his labors. The point is one that all critics of these ships ignore. Without these limitations it is easy to design something better than the *Dreadnought*, but to design a *Dreadnought* of 2,000 tons less displacement is quite another matter.

* * * The aim has been to produce a ship suitable for fleet action, rather than a vessel for individual combat against something similar to herself. This has led to a strict elimination of features which may be described as "luxuries," rather than "necessaries." * * * There is some good reason to believe that, taking all things into consideration, the *South Carolina* type is the best all-big-gun ship yet put in hand. * * *

The extinction of the protected cruiser is in many ways remarkable. * * * *Gazelles* and scouts all suffer from their small size and small endurance. * * * There are few more curious views in modern naval programmes than this ignoring of war needs. The U. S. S. *Birmingham* class scouts, with a considerable endurance, represent the realization of sound perceptions in the direction of protected cruisers, as in them alone of all small cruisers is there a sufficiency of coal. * * *

EXTRACTS FROM SOME FOREIGN PERIODICALS REGARDING DESIGNS OF UNITED STATES VESSELS.

[Engineering, March 26, 1897.]

Discussing Admiral Hichborn's paper on the *Alabama*, the editor says:

The design of the ship differs materially from that of recent vessels of a similar class in the British navy; indeed, it is marked throughout by originality and boldness of arrangement, both in general features and matters of detail. The armored protection is very complete. * * * It will be seen * * * that the central portion of the ship is completely inclosed by armor, extending from 4 feet below the load-water line to the level of the upper deck, or a height of about 23 feet, the minimum thickness being 5½ inches.

[The Engineer, June 14, 1901.]

Some time ago the Engineer prophesied that casemates would be an exploded idea for new British battle ships. We hear that the new 18,000-ton battle ship will have continuous batteries like the *Mikasa*, *Benedetto Brin*, all modern American ships, and all save the latest French battle ships. Bearing in mind the progress of explosives, we can not but see that the Admiralty are wise in returning to the old broadside ironclad idea.

[The Engineer, July 12, 1901.]

In conclusion we may give the broadsides of existing ships of the same type as the *King Edward*: *King Edward*, four 12-inch, two 9.2-inch, five 6-inch; *Mikasa*, four 12-inch, seven 6-inch; *Tavrichesky*, four 12-inch, eight 6-inch; *Brin*, four 12-inch, two 8-inch, six 6-inch; *Wittlesbach*, four 9.4-inch, nine 6-inch; American, four 12-inch, four 8-inch, four 6-inch. Reckoning an 8-inch as equal to one and one-half 6-inch shell power, we get the totals: British, *King Edward*, 31 in a minute; Japanese, *Mikasa*, 29 in a minute; Russian, *Kniaz P. Tavrishesky*, 32; Italian, *Benedetto Brin*, 31; German, *Wittlesbach*, 29; American, *New Jersey*, 44. All these ships, except the *Wittlesbach*, are identical in design. The *Wittlesbach* is perhaps a rather superior design in defense, the guns being more scattered, though it is not clear how she will use her offense to the full without interference. In general she is, however, of the same type. The Russian ship completing for sea is of low freeboard, but otherwise identical with the *King Edward* in the placing of her guns. She is less seaworthy and rather less likely to be hit. The *Brin* has recently been launched. The American ship is still in the clouds and may be made more powerful. As she is, however, it will be seen that she is far and away the leader. For each ship "the best in the world" claim has been put forward, but on paper the 16,500-ton American seems to carry off the prize. In speed and armor she is equal to the *King Edward*.

NOTE.—Instead of the figures given above, the *New Jersey* class, on a displacement of 14,948, have six 8-inch and six 6-inch on the broadside, making a total of 49 points, instead of 44, as given above.

[The Engineer, December 27, 1906.]

No war ships, perhaps, have had so many vicissitudes as the United States battle ships of the *New Jersey* class. Once again they have been definitely decided on, permanently, perhaps, now; but it need not be forgotten that earlier designs have been "final" also. There is no getting away from the fact that each new finality has been better than the preceding designs. As with each the displacement has gone up, this is not to be wondered at; but the great and essential point is this increase in displacement. In the past American ideals have tended to "whip creation" with the minimum displacement; now obviously nautical influences can be seen at work, with the result that we observe an honest striving after a real best, in place of what, rightly or wrongly, has hitherto been under suspicion of being rather a paper best. In fine, America is now definitely settling to building American war ships to American needs. * * *

Further along in the same editorial comment appears the following reference to the designs of the *Connecticut* class, full report upon which had been submitted to Congress a short time before. After inviting attention to various alleged defects, the editor makes the following comment:

We have drawn attention to these defects not in a carping spirit, but because in spite of them we still hold these 17,604-ton ships, so far as the meager details available allow, superior to any other battle-ship designs, not merely as ships, but per ton of displacement. * * *

A very important feature * * * is the abolition of triple screws, after which the Engineer in Chief is supposed to hanker. Executive officers seem to have formed the opposition, and they have carried the day on the grounds that however advantageous the triple system may be in coal economy it lacks the tactical advantage of the twin-screw system. Purely engineering disadvantages might also be alleged, but the primary question is one of fighting capacity. With two screws there is over 8,000 indicated horsepower available for assistance in a sudden turn; with triple screws considerably less power is available. This is the gist of the argument that has carried the day again with the United States Construction Board, and it argues a sound appreciation of a war ship as a fighting machine before all else. This is the dominant note all through the report, from the specific reasons against wood sheathing—of which we shall have more to say on another occasion—the situation of magazines, and facility of ammunition supply. *Never before do we remember to have seen American designs thought out with so single an eye to the practical in all things.*

NOTE.—In the foregoing extracts the italicizing is not the author's.

[No. 12.]

COMMITTEE ON NAVAL AFFAIRS.

**House of Representatives,
Washington, D. C., Tuesday, January 28, 1908.**

The committee met at 10.30 o'clock a. m., Representative Foss (chairman) in the chair.

**STATEMENT OF HON. TRUMAN H. NEWBERRY, ASSISTANT
SECRETARY OF THE NAVY.**

The CHAIRMAN. Gentlemen, I invited the Assistant Secretary to come before the committee this morning to ask him about certain matters in connection with the naval bill. On page 29 of the bill we have a paragraph reading:

Arming and equipping naval militia: For arms, accouterments, signal outfits, boats and their equipment, repairs to vessels loaned to States in accordance with law, fuel and clothing, and the printing or purchase of necessary books of instruction for the naval militia of the various States, under such regulations as the Secretary of the Navy may prescribe, \$100,000.

An increase of \$40,000 over last year. I wish you would kindly explain, Mr. Secretary, the necessity for the increase in the appropriation.

Mr. NEWBERRY. The strength of the naval militia of the several States is 5,757. The appropriation in the Dick bill for the care of the land forces is approximately \$20 per man. If it is the desire of Congress to put the naval militia on the same basis in regard to appropriations to be used in practically the same way for arming, for drilling, and for equipping the naval militia, it will be necessary to have an appropriation of approximately an equivalent sum. This is not quite as much as the *pro rata* rate arranged for the land forces. The decisions in regard to the use of the money in the Dick bill for ammunition for target practice have been such as to bar the organized naval militia from any participation in it; so that while the naval militia has proved by its service its value to the country, as shown in the Spanish war, where something over 120 per cent of the force enlisted in the beginning volunteered, they are not permitted to compete in the rifle practice because of the limitations of the construction of the Dick bill. They are not considered a part of the national guard, in other words. They are barred from that privilege.

The CHAIRMAN. That is to say, they no not get any of this appropriation of \$2,000,000 that Congress appropriated last year?

Mr. NEWBERRY. None whatever.

The CHAIRMAN. And all that the naval militia, as I understand, gets from the Federal Government in the way of appropriation, it gets under this paragraph in this bill. Is that right?

Mr. NEWBERRY. That is all. To put the naval militia in the position of the land forces, there was introduced in the House in the last Congress—not the last session, but the first session of the last Congress—a bill to establish a naval militia and to define its relation to the General Government, which carried no appropriation, but put under the Secretary of the Navy this force of 6,000 men in the same way that the Dick bill puts the land militia under the Secretary of War. The bill passed the House; but limitation of time or something else prevented its passage in the Senate, although there was no objection to it that I have ever heard. The bill has been reintroduced in this Congress, both in the Senate and in the House; and I should hope, for the efficiency of the naval-militia organizations and in order to wisely and properly expend such sum as you may appropriate, that the bill may become a law, because as it stands to-day the Secretary of the Navy has no authority to prescribe either the organization or the drill or even the uniform. That is to say, they are not required to conform to any established rules, because the Department is without authority to suggest or enforce them. I believe in one of our States, where the State appropriation was very low, part of the naval militia was uniformed in abandoned cavalry uniforms.

The necessity of increasing this appropriation—I have explained its purpose—is because to-day, with the vessels loaned to the several States, to obtain the clothing required for uniforms permissible under the bill, the States have to save up year after year their allotment. To explain that, I will say that the Secretary of the Navy takes the money appropriated by Congress in the sum of, say, \$60,000, and allots it on our books *pro rata* to the several States in accordance with the strength of the naval militia in the States. One State (Maine) gets as low as \$700. The highest is the State of Illinois, with about the same as the State of New York.

Mr. GREGG. That is *per capita*?

Mr. NEWBERRY. *Per capita*. States that have ships require more money than States that have not; they are more efficient and should have more money.

Mr. BUTLER. How many ships have they altogether, Mr. Secretary?

Mr. NEWBERRY. I will read you a list of the ships and their location.

Mr. GREGG. And of the States.

Mr. BUTLER. If you prefer, just put it in the record.

The CHAIRMAN. Yes; put it in the record, Mr. Secretary.

Mr. NEWBERRY. I will put it in the record. It is a list of the ships loaned to the various States and in commission with naval-militia officers and crews.

Mr. GREGG. Have you there a statement of how many each State has separately?

Mr. NEWBERRY. I will include that in the record also. It is on the other side of that page.

(The statements above referred to are as follows:)

Ships loaned to the various States and in commission with naval militia officers and crews.

Ship.	State.
Alleen.....	New York.
Alert.....	California.
Alvarado.....	Louisiana.
Don Juan de Austria.....	Michigan.
Dorothea.....	Illinois.
Elfrida.....	Connecticut.
Essex.....	Ohio.
Gloucester ^a	Massachusetts.
Gopher.....	Minnesota.
Granite State.....	New York.
Hawk.....	Ohio.
Huntress.....	Missouri.
Inca.....	Massachusetts.
Isla de Cuba.....	Maryland.
Isla de Luzon ^a	Louisiana.
Machias ^a	Connecticut.
Nashville.....	Illinois.
Newark ^b	New York.
Onesida.....	District of Columbia.
Portsmouth.....	New Jersey.
Puritan.....	District of Columbia.
Sandoval.....	New York.
Stranger.....	Louisiana.
Sylvia ^a	Pennsylvania.
Vixen ^a	New Jersey.
Wasp ^a	New York.

^aAssigned, but not yet turned over.

^bReturned to Navy Department.

Strength of the naval militia of the various States.

State.	Commis- sioned and warrant officers.	Petty offi- cers and enlisted men.	Total.
California.....	46	421	467
Connecticut.....	22	206	228
District of Columbia.....	16	217	233
Georgia.....	11	138	149
Illinois.....	45	521	566
Louisiana.....	47	518	565
Maine.....	5	64	69
Maryland.....	16	202	218
Massachusetts.....	33	528	561
Michigan.....	24	256	280
Minnesota.....	12	130	142
Missouri.....	8	106	114
New Jersey.....	30	305	335
New York.....	57	667	724
North Carolina.....	33	348	381
Ohio.....	18	195	213
Pennsylvania.....	8	91	99
Rhode Island.....	13	195	213
South Carolina.....	21	179	200
Total.....	470	5,287	5,757

Mr. NEWBERRY. In order to try to keep their organization at all efficient, as I say (I am trying to explain the necessity of the appropriation and its increase), the States have to save up from year to year until they can get enough to buy, in some years, uniforms, and pay for their ammunition, which is a very great expense; and having saved up out of previous appropriations, during the present fiscal year these States expended out of their appropriation and its accumulation (they have accumulated enough to expend this) \$100,333, all

of which went generally for the improvement of the ships loaned to them, as far as it could go. We have a small amount left for the balance of the fiscal year, which will probably not all be used, because other States with no appropriations will still have to save up until they can get enough to go on.

Mr. BUTLER. We have a few more than 5,000 men in the naval militia?

Mr. NEWBERRY. The exact number, I think, is 5,700.

Mr. BUTLER. Have you any suggestions to make by which we can increase the number? Let me supplement that question, please, by stating that I am greatly interested in the life of the naval militia and in its development; and if you have any suggestions to make, Mr. Secretary, I should be very glad to hear them, speaking for myself as one member of the committee.

Mr. NEWBERRY. My suggestion, Mr. Butler, is to enact the bill which is now introduced in Congress, by which the Government of the United States will direct the Secretary of the Navy to take a controlling interest over these people, so that they will realize that they are working for some definite end. As it is to-day, they can only get the expression of opinion from time to time of some one in authority as to their utility.

Mr. BUTLER. Then the Navy Department would have a relation to the naval militia which would compare somewhat with the relation of the War Department to the National Guard?

Mr. NEWBERRY. It would be identical.

Mr. BUTLER. Yes.

Mr. NEWBERRY. And we could then, with some idea of a definite plan, use the appropriation to organize these people together, to prepare them for the service which it seems advisable for them to undertake, to uniform them alike, and to provide a similar organization and officers, so that from the different parts of the country from which they will come in time of need they can take charge of a ship as a complete organization. That can not be done now, because they are organized under the laws of the several States, and each State has some idiosyncrasy of law which does not harmonize with the laws of some other State.

Mr. BUTLER. Have you any knowledge as to the amount of efficiency (if that is the proper way to put it) that is found in these men after the limited amount of training they get as naval militia men?

Mr. NEWBERRY. At the risk of speaking about myself, I can tell you what the effect was.

Mr. BUTLER. I will be very glad to hear from your experience on on that point.

Mr. NEWBERRY. At the time of the Spanish war the Government bought, at one period, four vessels, the best they ever bought, I think—the *Dixie*, the *Prairie*, the *Yosemite*, and the *Yankee*. The naval militia of Michigan, the naval militia of New York, the naval militia of Maryland, and the naval militia of Massachusetts were the most efficient at that time, and were notified that they would be assigned to these vessels. In my own State we left as soon as we were notified—257 officers and men—and we went on board this ship on the 6th of May without any other sailors on board. We organized a fire-room force and a force for every other part of the ship, and had aboard the ship as naval officers only a captain, an executive officer, and a navi-

gating officer, besides some marines. We ran fourteen or fifteen thousand miles and never saw a navy-yard and never had any repairs; we fought our fight and did pretty well, and got home.

Mr. GREGG. And were not captured.

The CHAIRMAN. I want to say right there that there were 60 men from the Illinois naval militia on the *Oregon* alone in the fight.

Mr. NEWBERRY. I think the greatest number of volunteers in the naval militia come from Illinois. We have expanded there to an enormous extent. I think nearly 600 men volunteered from the State of Illinois through the naval militia for the Spanish-American war.

The CHAIRMAN. Yes. Is there anything further on the matter of the naval militia, Mr. Secretary? If not, I want to touch upon another subject which is very near to the hearts of the committee.

Mr. NEWBERRY. I only want to say that to perfect their efficiency (in reply to Mr. Butler's question) the Navy Department assigns each summer some one or more boats, as many as can be made available, and takes the naval militia of each State for a period of a week or ten days to sea on these vessels to give them an idea of what they are shooting at—what they are trying to become—and with your permission, without reading it, I will include in the record a statement of what was done this year.

(The paper above referred to is as follows:)

NAVY DEPARTMENT, *Washington*.

During the past summer (1908) the U. S. S. *Prairie* was employed from the end of June until the 1st of October in taking out various naval militia organizations on cruises averaging eight days. The organizations cruising on board the *Prairie* were the naval militias of Maine, Massachusetts, Rhode Island, Connecticut, New Jersey, Pennsylvania, South Carolina, and Georgia.

In addition to the above training, the naval militias of the Lake States participated in fleet maneuvers off Bois Blanc Island, Lake Superior. The vessels taking part were the *Gopher*, *Dorothea*, *Essex*, and *Hawk*, commanded by the U. S. S. *Wolverine*.

Also, cruises were made by organizations to which vessels are regularly assigned, as follows:

First battalion New Jersey on board *Portsmouth*.

Maryland naval militia on board *Isla de Cuba*.

Louisiana naval militia on board *Stranger* and *Alvarado*.

California naval militia on board *Alert*.

The Michigan naval militia took the *Don Juan de Austria* from the navy-yard, Portsmouth, N. H., through the St. Lawrence to Detroit.

The Missouri naval militia took the *Huntress* from the Pensacola Navy-Yard up the Mississippi River to St. Louis.

Mr. BUTLER. The reason I asked the question is because it is frequently stated here, when men are asked for for the Navy ("regulars," we call them, for the Navy), that it requires such a long period of time to prepare these men for service. That is the reason I asked you the question.

The CHAIRMAN. Are there any further questions?

Mr. GREGG. There is one thing I would like to ask the Secretary. As I understand you now, there is no law under which the naval militia is in any way subject to the Navy Department?

Mr. NEWBERRY. The only national law on the subject is that simple item in the appropriation bill.

Mr. GREGG. But I mean as to discipline or control, or anything of that kind?

Mr. NEWBERRY. None whatever.

Mr. GREGG. They are not subject to you in those ways?

Mr. NEWBERRY. Not at all.

Mr. GREGG. Prior to the passage of the Dick bill, which put the land militia under the jurisdiction of the Secretary of War, did the National Government make any appropriation for the land militia?

Mr. NEWBERRY. I think they did. I am not prepared to say. I know that they supported the land militia for a great many years; but my recollection of the Dick bill is—

Mr. GREGG. The point in my mind was as to the advisability of appropriating anything unless we had some jurisdiction over them. On what ground would you justify that, Mr. Secretary—appropriating money for them without having any control over them?

Mr. NEWBERRY. I think perhaps it was because the committee were persuaded that there was an opportunity to develop a spirit of interest in the naval service that would warrant the appropriation. I think that was the way it began.

Mr. GREGG. Does not the fact that we are making an appropriation emphasize the necessity of passing this bill that you spoke of a while ago—the bill that is pending?

Mr. NEWBERRY. It does.

Mr. GREGG. So that we can have some control over how the money shall be expended or used?

Mr. NEWBERRY. It does, very much, Mr. Gregg. I think I said the same thing two years ago, and this committee and the House passed the bill then without debate. There was no debate on the bill, because there was no objection to it, and it carried no appropriation.

Mr. BUTLER. They had some little debate over it, however, in the Senate. It went through the House, I remember very well, one evening.

Mr. DAWSON. Does this proposed bill put the naval militia in a position where the Federal Government can call it into service?

Mr. NEWBERRY. Yes; it is exactly like the Dick bill.

Mr. BUTLER. You can not call them now; you can not compel them.

The CHAIRMAN. Are there any further questions, gentlemen, in regard to the naval militia? If not, I want to ask some questions on another matter, Mr. Secretary.

The committee have had under consideration now for two years the subject of Navy Department administration. Two years ago a number of the members of the committee went around and visited the different yards. During the last summer seven members of our committee visited the navy-yards from Norfolk up along the Atlantic coast to Portsmouth. I think all the members of the committee are convinced that there could be worked out a simpler and more economical administration of the industrial part, at any rate, of the navy-yards than obtains at present. Last year the committee inserted in the naval appropriation bill a provision authorizing the Secretary of the Navy to appoint a commission, of which two members should be naval officers, to investigate the whole question relative to working out a simpler and more economical administration of the navy-yards. This provision went out on a point of order in the House when the bill was under consideration. Now, we would like to know from you, first, whether or not you have given the matter consideration; second, what your views are relative to the subject, and third, what you have done toward carrying out any idea that you have in your mind looking to a consolidation of shops or work in navy-yards.

Mr. NEWBERRY. The regulations provide that I shall visit the navy-yards every year. I have visited all of them every year, except the West-coast yards, which I have not been able to visit. I am, under the Secretary, responsible for the administration of the navy-yards, and have been for some time; and I have been impressed, as your committee no doubt were impressed, with the peculiarities of the development of our navy-yards under the several laws that apply to the Navy, and of the method in which appropriations are made.

Without going into any long, historical review, I will say, as you know, that the same matter impressed Mr. Morton when he was Secretary of the Navy, and a law was passed to make a splendid beginning—for instance, in the consolidation of power plants. There used to be, and in the uncompleted plants there still remain, several power plants under the cognizance of different bureaus, paid for out of appropriations made to these several bureaus, and practically all trying to do the same thing. Mr. Morton went systematically to work to do this, and placed the control of those power plants under the Bureau of Yards and Docks, the officers of which are competent civil engineers. The work was begun in practically all the yards at the same time. Since I have been here there have been three heads of that Bureau, all civil engineers and very good ones. The consolidation of the power plants will be accomplished in a reasonably short time. In some yards the power plants, while not consolidated in one building, are being operated by the Bureau of Yards and Docks in accordance with the law. The law prescribed who were to run them. In all of the other yards the work is under way. They have had much to learn, and some experiments, I think, to make. That work was directed by an act of Congress, and upon its wisdom I am not prepared to comment, except to say, in general of course, that the consolidation of power plants was the wisest possible thing that could have been done.

In all the yards in which I have been you will find three or four isolated sets of men, under different bosses, reporting to different bureaus, making patterns; from two to four paint shops; three or four carpenter shops; generally three excellent machine shops—all of them busy, and all of them doing equally well as real honest work as I believe can be done. I do not think there is a word of criticism to pass, and I have none as to the method of detailing the work that is being followed under long-continued practice, and appropriations made by or through this committee. However, under the authority of the Secretary of the Navy I have been for some time working on a plan which will make a start toward doing away with some of these apparently unnecessary shops. Only yesterday, I think, I signed the last order which will experimentally combine in the yard at New York three different pattern shops, using the best tools in the best shops that we have. I hope also to combine all of the carpenter work under one shop. Nominally the work will be under one of the bureaus; but of course the Secretary of the Navy runs the Navy, and the bureaus do what he tells them to do. The same is true of the several paint shops. It will take some months, perhaps, to find out where I am wrong; but I hope for cooperation, and whether or not my hopes are realized I can assure you that the consolidation will be effected.

Mr. DAWSON. Under what bureau are you placing these shops?

Mr. NEWBERRY. They happen to be under different bureaus, because of the different shops at New York. Take, for instance, the pattern shop in New York—the Bureau of Yards and Docks have a little pattern shop with three or four men working in it. I am sorry that I did not know you were going to take up this question or I could have brought up with me detailed information about it; but at any rate I can tell you in general. The two large pattern shops in the New York yard are in Construction and Steam Engineering, and are approximately of the same size. In one last week, on Saturday, there were three employees, and in the other there were, I think, eleven. In general that is about the measure of the work. We take the best shop. In that case it was the shop built and controlled now by the Bureau of Steam Engineering, and in the future all the pattern work of the yard will be done in that shop. The shop is, in my opinion, large enough to do all the work of the yard. I will not go into details as to how it is going to be done, because it is altogether too dry and technical; but the Secretary of the Navy will simply say that it must be done, and it will be done.

Mr. DAWSON. Then will all the pattern work at that yard be under the control of the Bureau of Steam Engineering?

Mr. NEWBERRY. It will be under the control of the commandant, who controls the head of that office, and the Secretary of the Navy controls the commandant. I am trying to convey the idea that the appropriations made for the Navy Department are actually controlled by the Secretary of the Navy; and if it happens at that yard that the Bureau of Steam Engineering has a plant better adapted for making patterns, they will all be made in that building. As to the details of control, the superintendent may happen to be attached to the Bureau of Steam Engineering for the time being, or he may not.

Mr. DAWSON. There will still be the divided authority with respect to the administration of that shop?

Mr. NEWBERRY. None whatever.

Mr. THOMAS. You do not recognize any bureaus at all, Mr. Secretary? Is that the idea?

Mr. NEWBERRY. I would not say that. I would not say that there is any such thing as elimination of bureaus in my mind at all. But the economical administration of yard work can be accomplished in this way by forgetting, in your own mind, that this officer is detailed to any bureau. You do not have to remember that. He happens to be detailed there, but he is there by direction of the Secretary of the Navy, and he is there to look after the pattern shop; and while the complaint has been that the other bureaus could not do that, because they would make all the steam-engineering patterns first, a very simple provision overcomes that. It is only necessary to require requisitions for patterns to be placed publicly on file in the office, and to be made in the order in which they are filed, except in instances where, because of some emergency, the commandant of the yard may direct otherwise. Do I make myself clear as to that particular shop?

The CHAIRMAN. Yes.

Mr. NEWBERRY. As to the carpenter shop—you have asked about that—the plant of the Bureau of Construction and Repair is larger and better equipped to do all the carpenter work; and in that case it

will happen to fall under the representative of the Bureau of Construction and Repair. The paint shop, I think, will be under the same bureau.

Mr. TALBOTT. That will add to the space in the yard, too, will it not?

Mr. NEWBERRY. I have not gotten as far as to begin tearing down anything. This is experimental; and if it works, in future appropriations—not this year, but in other years—you can look toward making one of each character of shop the best shop in each yard, and eventually get the men and machinery into those shops without any particular law. It will simply be a matter of administration, working along toward exactly the same conditions that exist in any private plant. But you must remember that we are tremendously handicapped in one thing in every yard. If you can assume that the commandant of a yard is in the nature of the general manager of a manufacturing plant, and the officers of the several bureaus detailed to look after the several buildings erected for their bureaus are in the nature of the superintendents of divisions of a plant, we find this serious situation—that every two years the slate is wiped clean. In other words, we have an entirely new general manager and entirely new superintendents at least every two years. Struggling against that difficulty, it has been a marvel to me that these navy-yards have produced much of anything.

Mr. GREGG. Is the commandant changed every two years?

Mr. NEWBERRY. Approximately.

The CHAIRMAN. Have you ever given any consideration to the idea of putting all the industrial part of the yard under one bureau, and having what we may call the military functions—for they are largely functions—performed by a naval officer, the commandant?

Mr. NEWBERRY. Right in that yard we have accomplished a great deal in the simplification of correspondence in the last year. The routine rubber-stamp work that the commandant of the New York yard did would astound you. In the midst of all the signing of the discharge of a man, or a requisition for a dozen screws, in comes an admiral and some other officers and report their arrival, or that they are ready to depart, and want to have their orders signed, and the commandant mixes up business administration with military administration in such a way that, to me, his brain is a wonder. It is a marvel to me how he can keep anything straight. We have accomplished some short cuts in business there, I hope. We tried them in the New York yard this fall, and they worked so well that when the fleet got away Admiral Evans said he did not think they would ever have gotten away if we had not had them. I am putting this same simplification of correspondence in effect in every yard in the country, in order to try it for three months before changing the regulations.

The CHAIRMAN. Have you power, under the law, to work out the consolidation of bureaus—we may say, of Equipment and Steam Engineering and Construction and Repair?

Mr. NEWBERRY. The bureaus are provided by law. The Secretary of the Navy is authorized to divide the work among those bureaus in such manner as may seem to him from time to time advisable. Having done that, and incorporated them in the regulations, they have the force of law. But the regulations can be changed quickly. All you have to do is to make a reasonable suggestion for a change and take it over, and if the President approves the change the regulations are changed.

The CHAIRMAN. So you really have authority to bring about all these changes?

Mr. NEWBERRY. We could not abolish a bureau or the appointed officer at the head of it, but the Secretary can so divide the work as to minimize the importance of one bureau or to practically consolidate the work under any particular bureau he wishes.

The CHAIRMAN. Right on that point, he could decline to appoint the chief of any bureau, could he not, if he wanted to?

Mr. NEWBERRY. That is an appointment of the President, I think.

The CHAIRMAN. Or, rather, the President could.

Mr. HOBSON. Do you think we would ever have a Secretary of the Navy who would undertake to abolish the bureaus erected by law, simply by order—that is, abolish them in effect, if not actually?

Mr. NEWBERRY. I am rather of a hopeful disposition. I do not think it is impossible at all.

Mr. DAWSON. I want to ask one or two other questions about those experiments that you have undertaken, Mr. Newberry. You have undoubtedly considered what this will lead you to. As I understand, according to the system followed in the navy-yards, by reason of the size of a particular department of work, the pattern-shop work, we will say, in the New York yard is under Steam Engineering. Perhaps at the Norfolk yard the best equipped pattern shop would be under some other bureau. So that if this experiment were pursued to a logical conclusion, we would be likely to have the situation of a different bureau controlling these different shops at the different yards. Would not that result in more confusion than we have now?

Mr. NEWBERRY. I would like to take exception simply to your word "control." They do not control; they direct as they are directed. The Secretary of the Navy will control. That is what I am trying to get at—a little more Secretary and a little less bureau.

Mr. DAWSON. Of course the Secretary of the Navy can not give immediate direction or immediate control to the work in every yard.

Mr. NEWBERRY. No, no. His representative is the commandant of the yard. And while it happens for the time being that some officer attached to some bureau is in charge of a certain building, it does not take away one bit of authority from the commandant of the yard to see that that building is run exactly as he thinks it ought to be run, and as he is told to run it.

Mr. ROBERTS. Mr. Chairman, may I ask the Secretary this question: In your judgment, do the commandants of the yards take a very active interest in the operation of the yards where they are stationed? Has that been your experience?

Mr. NEWBERRY. I think, generally speaking, that they do, with the limitation of time put on them. They only have two years there, approximately, and it takes them some time to know what they are trying to do. But I do think they are all interested—yes; I will say all.

Mr. ROBERTS. My experience has been that as a rule the commandants do not seem to go very deeply into the inside workings of the yards. Perhaps it is due to their not being stationed there long enough, and to the fact that they know they will not be there very long.

Mr. NEWBERRY. I do not want to draw any comparisons, but of course there are degrees of interest and degrees of ability.

Mr. ROBERTS. But do you think, Mr. Secretary, that the system of placing that responsibility on the commandants, in view of their short term of service, is for the best interests of the yards as a whole? Would you not get better results if, for instance, you had your commandants in the yards for a longer period than an average of two years?

Mr. NEWBERRY. Certainly; and if they were there for fifteen years we would have conditions approximating those in a manufacturing plant.

Mr. ROBERTS. Could the Department make that change and insure a longer term of service for the commandants?

Mr. NEWBERRY. Not with the present organization of the Navy.

Mr. GREGG. Would it be practicable to have a civilian superintendent, so to speak?

(This question was answered at a later point in the hearing.)

Mr. TALBOTT. The commandant of a navy-yard, when his two years are up, is not transferred to another yard?

Mr. NEWBERRY. No; that is generally the termination of his service. I recall a case of that kind, however, in the case of the Pensacola yard. An officer went there when he had just become a captain, stayed there two years, and when promoted was transferred to the Portsmouth yard.

Mr. OLCOTT. I would like to ask one question, Mr. Secretary. If you consolidate machine shops, for instance, and make one big machine shop in the New York Navy-Yard, there will have to be additional facilities, will there not, built in the New York yard for the transportation of heavy castings and foundries from one part of the yard to another?

Mr. NEWBERRY. We will have to take each case separately. In the case of the New York yard it would be very impracticable to consolidate into one building the several machine shops; but eventually perhaps one man would be responsible for the running of all the machine shops that are in the yard, and when appropriations are made for new machinery they would not be made for duplications of machinery already in the yard, as is now the case.

Mr. DAWSON. Mr. Secretary, under all the conditions, with the tremendous variety of duties which the commandant of the yard now has, and in view of the fact that he is only stationed there for two years, do you think any great measure of saving or economy can result from making him directly responsible for the operation of these consolidated shops?

Mr. NEWBERRY. It is certainly worth the effort.

Mr. DAWSON. Our committee this summer came across the commandant of one navy-yard who, when he was asked the question whether he could make any suggestions as to how we could save money, immediately bristled up and said "No; he could not; he was not trained as an economist; he was trained as a naval officer; he was not trained as to how to save money; he was trained as to how to expend the money."

Mr. NEWBERRY. Now, Mr. Gregg, as I understood you, you were going to ask me about the civil administration of the yard?

Mr. GREGG. That is what I wanted to ask when my turn came; yes, sir—if it would be practicable to have a civil or civilian superintendent?

Mr. NEWBERRY. With some limitations to conform to a military administration, which would not interfere at all with the efficiency of the yard, I think the Government is in a position to do as any intelligent civilian does, and to run its manufacturing business on approximately the same lines.

Mr. BATES. In your opinion, Mr. Secretary, is there not a good deal of incongruity in taking a man who has been educated at Annapolis and who has been treading the deck of a vessel, and putting him immediately in charge of a manufacturing plant, and that only for two years?

Mr. NEWBERRY. I would rather be excused from criticising. [Laughter.] I am willing to volunteer my opinion on any subject, but I would rather not be asked to criticise.

Mr. BATES. I appreciate your situation.

Mr. NEWBERRY. I will say, though, that the thought can not help occurring to anybody that is interested that the present custom probably came about because in the nature of things a naval officer can not be expected to remain constantly at sea. He must have some time ashore. It might be just as well, in some cases, if they were provided with a nice home up on the mountains somewhere where they could rest. A great many of them are efficient, but some of them are simply "ashore."

Mr. BATES. They are simply "Jack ashore."

Mr. DAWSON. The number of questions that were asked in the meantime I think rather diverted you from an answer to the question of the chairman, as to whether or not you thought it practicable to effect a consolidation of the three bureaus of Steam Engineering, Equipment, and Construction and Repair, from the standpoint of the industrial end of the naval business?

Mr. NEWBERRY. If I can refer to the personnel bill (which I hope to interest you in some day later in the winter), you will find in that that we made that very suggestion. I even went so far as to hope that the Bureau of Construction and Repair would actually construct and repair. [Laughter.]

Mr. HOBSON. Mr. Secretary, while you are carrying on these promising experiments, do you think it advisable that any tentative legislation should be undertaken or that a commission should be appointed to investigate the matter?

Mr. NEWBERRY. In regard to legislation, I am of the opinion that the Secretary of the Navy has authority enough now to accomplish, tentatively, something which will indicate later the desirability of some law, some change in the method of making appropriations. But in response to Mr. Butler's suggestion, I have laid before the committee all that I have in my mind about the matter; and that is that we have to try things without using an ax. We do not want to demoralize the administration of the yards; we want to try to improve it; and it can be done, in my judgment, along the lines I have indicated, without disaster.

Mr. HOBSON. And do you think it advisable to have a commission appointed before you make a report of the results that you get from these experiments.

Mr. NEWBERRY. The desirability of a commission is a matter that I should much prefer to leave to the gentlemen of the committee. I think the more intelligence we get to bear on any one point the better

the result will be—that is, in the way of advice. When it comes to the execution of any plan that may be advised I do not think we want to make a commission a board of directors to execute anything; but it is a very good thing to have to advise and to look into the matter.

Mr. ROBERTS. Mr. Chairman, I was not in the room during all of the Secretary's remarks; but I would like to ask the Secretary if all of the experiments (if I may put it that way) that he has in mind have been put in operation in the yards?

Mr. NEWBERRY. No; they are being put in operation.

Mr. ROBERTS. They are being put in operation?

Mr. NEWBERRY. Yes; and it took some time to get around to them.

Mr. ROBERTS. About how long would it take you to get them in operation in all the yards?

Mr. NEWBERRY. About thirty or sixty days; thirty days, I presume.

Mr. ROBERTS. Then how long a time will it be before the Department can draw its conclusions as to their effectiveness?

Mr. NEWBERRY. Certainly before the end of the fiscal year, before we make up another appropriation bill.

Mr. ROBERTS. In other words, you want at least five or six months' trial to demonstrate it?

Mr. NEWBERRY. I think so. It is a radical change, and it ought to be very cautiously done, I think. If it were my plant I should want to do it that way; and that is the way I try to look at it—as if I were looking after my own plant.

Mr. ROBERTS. Just one further question: Next year, when the committee come to consider the bill, we ought to be able to get some pretty definite information from the Department as to how their plans have worked, and whether or not legislation is necessary to carry them out to completion; ought we not?

Mr. NEWBERRY. I should hope so.

Mr. ROBERTS. We ought to get, next year, some pretty conclusive information about them?

Mr. NEWBERRY. I should hope so.

Mr. PADGETT. I want to ask the Secretary—changing the subject a little bit—about the Mare Island Navy-Yard. What steps are being taken by the Navy Department with a view of ascertaining the conditions there, as to the advisability of the further expenditure of money there, and the perpetuity of the yard or the abandonment of the yard? Is anything at all being done in that line?

Mr. NEWBERRY. I have not heard any suggestions made either for a change of location or for abandoning the yard.

Mr. PADGETT. Are any steps being taken with a view of ascertaining whether deeper water can be gotten there?

Mr. NEWBERRY. There are several plans to deepen the water at Mare Island. One is by ordinary dredging. The second is by a dam and a diversion of the water which flows by the yard, by diverting the river around the yard (if I may so express it), and making it a still-water yard instead of a yard situated on water through which a current passes. In that way the deposit of silt will not be so great.

Mr. PADGETT. Do you mean to have locks?

Mr. NEWBERRY. Not necessarily locks; but we will have the water still there, dammed above, instead of running.

Mr. PADGETT. In other words, you mean to put a dam down below and then build a channel around?

Mr. NEWBERRY. Divert the river above the yard and run it around. That is one of the plans I have heard discussed.

Mr. PADGETT. Is the Department initiating any inquiry or investigation into that matter?

Mr. NEWBERRY. Not through my office, Mr. Padgett; not that I know of.

Mr. MUDD. The statement was made here that an investigation was being made.

The CHAIRMAN. That was by the Chief of the Bureau of Yards and Docks.

Mr. NEWBERRY. That was probably by direction of the Secretary.

Mr. ROBERTS. May I ask the Secretary what depth of water we have there now?

Mr. NEWBERRY. We had yesterday 23 feet and 4 inches.

Mr. ROBERTS. As the maximum?

Mr. NEWBERRY. That is the shallowest spot between the Mare Island Navy-Yard and deep water.

Mr. MUDD. That was at high tide, was it not?

Mr. NEWBERRY. I assume that it was at low tide, because that is the way the depths of water are always given.

Mr. ROBERTS. What is the rise and fall there? What would be the maximum?

Mr. NEWBERRY. I should have to ask Mr. Hobson. He has been there, and I have not. I should think it was very little; I do not know.

Mr. ROBERTS. A great many different statements have been made about the water at that yard.

Mr. NEWBERRY. I apologized to begin with by stating that I had never been at Mare Island.

Mr. ROBERTS. Some people have claimed that we had 28 feet, and some have claimed that they have not more than 23.

Mr. GREGG. Mr. Secretary, have you any data by which you can give us the probable cost of securing this deeper water by either of the methods suggested?

Mr. NEWBERRY. I have none.

Mr. HOBSON. There is one final question I would like to ask you, Mr. Secretary: Could you make a recommendation to us by next year of a plan for the development of certain navy-yards and the abandonment of other navy-yards which would be advisable to promote the efficiency of the service?

Mr. NEWBERRY. I shall be very glad to be asked to do it if I am here.

Mr. HOBSON. I will make that request, Mr. Chairman.

The CHAIRMAN. Mr. Secretary, we are very much obliged to you for coming before the committee.

[No. 13.]

THE COMMITTEE ON NAVAL AFFAIRS.

February 5, 1908.

The committee this day met, Hon. George E. Foss in the chair.

STATEMENT OF HON. VICTOR H. METCALF, SECRETARY OF THE NAVY.

The CHAIRMAN. Mr. Secretary, there are some matters connected with the naval appropriation bill that we would like to inquire about, and I will mention one—that is, the subject of officers. For a number of years, I believe, we have been deficient in the number of officers, and I would like to ask you if you have looked into the question to see whether or not the present law, which runs until 1913, allowing the appointment of one cadet every two years, will supply more officers than we are likely to need by that time. In the first place, are we short of officers at the present time?

Secretary METCALF. We are short of officers at the present time.

The CHAIRMAN. If all the ships were put into commission, how many officers would we require?

Secretary METCALF. In order to properly officer the fleet now built and under construction, there will be required 2,434 line officers alone, and for shore stations at least 447, making a total of 2,881. To this number should be added 3 per cent of the officers for sick and for officers in transit to and from vessels and stations, 84, making a total of 2,965. That is on a peace basis. In the event of war it would be necessary to increase the number. We would require at least 20 large, fast, merchant steamers, and for each of those steamers we would require about 8 line officers, for deck and engineering duty, making a total of 160, and that number added to the 2,965 would make a grand total of 3,125. There were 1,279 line officers on the active list January 1, 1908.

The CHAIRMAN. How many officers would that leave short in the event of hostilities?

Secretary METCALF. One thousand eight hundred and forty-six. All that is necessary is to make a comparison of our Navy with foreign navies. To illustrate: Great Britain has 96 flag officers; France, 45; Germany, 34; and Japan, 55, and yet our Navy is practically double in strength that of Japan. Captains and commanders, England has 618; France, 360; Germany, 299; Japan, 245; and we have 182. Other line officers and engineers, England has 3,289; France, 1,874; Germany, 1,732; Japan, 1,571, and we have 751. This does not include the midshipmen at the academy. None of our ships has the requisite number of officers.

The CHAIRMAN. Will you please state how many officers we are short to-day?

Secretary METCALF. In the event of hostilities we would be short 1,846 officers. This last year we practically doubled our tonnage; I think we added nine battle ships and four armored cruisers.

The CHAIRMAN. The superintendent of the Naval Academy, Captain Badger, said that the present law would give us 1,800 officers by 1913; that is, allowing for all casualties.

Secretary METCALF. Each year we lose a certain number of officers by death, retirement, resignation, and so on. I think we lose on an average at least forty officers by death and retirement, and we are graduating from the Naval Academy practically 180 to 200 midshipmen each year.

Mr. MUDD. In view of the likelihood of the additional increase in the navy personnel, is it not more than likely that we will never be called upon to reduce the number of midshipmen?

Secretary METCALF. We can not afford to make any reduction in the number for some time.

The CHAIRMAN. If you are short all of these officers I should not think we could afford to repeal the law.

Secretary METCALF. I do not think that you can afford to make any change at the present time. It is a matter that will have to be most carefully considered.

Mr. PADGETT. Mr. Secretary, does not the large shortage of officers which you mention argue that we might hold up building battle ships for a while?

Secretary METCALF. I do not think so, because we need the battle ships. We can put some of the big cruisers in reserve and take the officers and men from those cruisers and put them on the battle ships.

The CHAIRMAN. Your recommendation is made on the basis that all these ships will be in commission at the same time?

Secretary METCALF. Yes, sir.

Mr. BUTLER. You advocate, then, an increase in both the ships and the men?

Secretary METCALF. We require at least 6,000 more men.

The CHAIRMAN. You have asked for 3,000 additional men, making in all 39,000 men?

Secretary METCALF. Yes, sir; we want 42,000 altogether.

Mr. LOUDENSLAGER. How many men did you enlist this year?

Secretary METCALF. We are within 600 men of the limit now.

Mr. LOUDENSLAGER. How many did you enlist?

Secretary METCALF. We have enlisted them at the rate of practically 2,000 a month during this fiscal year.

Mr. LOUDENSLAGER. Just recently?

Secretary METCALF. Yes, sir. Starting at the 1st of July the average, I think, has been about 2,000 a month for the last seven months.

Mr. LOUDENSLAGER. There must have been a good many discharges or desertions?

Secretary METCALF. There are of course desertions and men are discharged as undesirable. Some men purchase their discharge. But the enlistments are far in excess of the discharges and desertions.

Mr. LOUDENSLAGER. You are getting up nearer the limit authorized by enlisting 14,000 men in seven months, but I think there must have been a good many discharges and desertions

Secretary METCALF. I think there have been on an average about 1,000 men a month who leave the service for all causes—expiration of enlistment, discharges, desertions, and so on.

Mr. PADGETT. I have heard that there has been quite a reduction in the number of desertions in the last few months. Is that correct?

Secretary METCALF. I hardly think there has been any material reduction in the number of desertions.

The CHAIRMAN. I understand you ask for 3,000 men additional to those asked for in the estimates?

Secretary METCALF. Yes, sir. If we do not secure them we will have to put some of the ships in reserve.

The CHAIRMAN. Do you want those men made immediately available?

Secretary METCALF. Yes, sir.

The CHAIRMAN. So you can enlist them at any time between now and the first of July?

Secretary METCALF. Yes, sir.

Mr. PADGETT. The present limit is 39,000 men?

Secretary METCALF. Thirty-six thousand, and we ask in the estimates for 3,000 more.

Mr. PADGETT. And you want 3,000 men in addition to those?

Secretary METCALF. Yes, sir.

Mr. PADGETT. In other words, you want 6,000 additional men?

Secretary METCALF. Yes, sir.

The CHAIRMAN. Will you kindly put into the hearing a statement showing the number of men required to equip all the ships?

Secretary METCALF. I will be very glad, indeed, to do so.

Fifty-five thousand men, plus 2,500 under training, required to man all vessels of the Navy, not considering vessels to be commissioned subsequent to July 1, 1909.

Mr. BUTLER. Will it require 42,000 men to man the ships we have in commission and those which will be put in commission during the next few months?

Secretary METCALF. Yes, sir. In less than four or five months we will have three additional battle ships, two armored cruisers, and three scout cruisers to commission. The battle ships require about 800 men each, the armored cruisers about the same number, probably 900 men each, and the scout cruisers probably 300 men each. Those ships have to be put into commission before we make the final payments.

Mr. BUTLER. You do not include the two big ships recently contracted for?

Secretary METCALF. They will not be built for two or three years, not the ships of the *Delaware* type nor the *South Carolina* or *Michigan*.

Mr. LOUDENSLAGER. Will you also please put into the hearing a statement showing the percentage of vessels that are out of commission and the number of men that will naturally be needed for them?

Secretary METCALF. When a ship is in reserve we have to keep on board a certain number of men all the time.

Percentage of vessels out of commission or in reserve.

	Per cent.
Battle ships.....	25
Armored cruisers.....	20
Armored ram.....	100
Monitors.....	100
Protected cruisers.....	50
Unprotected cruisers.....	66

Of the above classes of ships, 47 per cent are out of commission or in reserve.

Of the smaller gunboats, yachts, auxiliaries, torpedo craft, etc., the percentage out of commission or in reserve is as large, if not greater.

To man all the vessels out of commission or in reserve would require 14,322 men.

The CHAIRMAN. There is a paragraph in the bill which relates particularly to your office, "Contingent, Navy, \$65,000," and the estimate this year calls for the same amount. Do you recommend any change in the wording of that paragraph?

Secretary METCALF. I do not think any change necessary at the present time.

The CHAIRMAN. What is this fund used for? Please put into the hearing a statement of how this fund is used.

Secretary METCALF. Yes, sir.

NAVY DEPARTMENT,
Washington, February 4, 1908.

EMERGENCY FUND, NAVY DEPARTMENT.

The original appropriation of \$25,000,000 for "emergency fund, Navy Department," made by the deficiency act approved July 7, 1898, was expended under the direction of the Secretary of the Navy. The subsequent appropriations were made "to be expended at the discretion of the President."

Beginning with the fiscal year 1905, the two appropriations "emergency fund" and "contingent, Navy" were merged in one, to be expended "on the approval and authority of the Secretary of the Navy, and for such purposes as he may deem proper," the amount being fixed at \$65,000, which has been the sum appropriated for each subsequent year.

Statements are appended showing the amounts appropriated for the "emergency fund" for each fiscal year, the amounts expended, transferred to other appropriations, reappropriated, and carried to the surplus fund. Also statements showing the expenditures from the appropriation "contingent, Navy," for the fiscal years 1906 and 1907, and the obligations incurred under "contingent, Navy, 1908" up to the present time.

Fiscal year.	Appropriations.	Transferred to other appropriations and reappropriated.	Expenditures.	Balances carried to surplus fund.
Jan. 1, 1899.....	\$25,000,000.00	^a \$3,000,000.00	\$4,164,893.88	\$17,635,106.12
1899.....	1,000,000.00	^b 500,000.00	299,259.77	200,740.23
1900.....	625,000.00		569,061.82	55,938.18
1901.....	444,356.00		347,163.21	97,192.79
1902.....	206,501.60		114,809.70	91,691.90
1903.....	100,000.00		59,645.54	40,354.46
1904.....	35,000.00		29,334.61	5,665.39

^a \$1,000,000 reappropriated to "emergency fund, 1899;" \$1,000,000 transferred to "clothing and small stores fund," and \$1,000,000 transferred to "naval supply fund."

^b \$500,000 reappropriated to "emergency fund, 1900."

NAVY DEPARTMENT,
Washington, January, 25, 1907.

Expenditures from appropriation "Contingent, Navy", 1906.

Salaries of clerks and others at—	
Naval station, Cavite, P. I.....	\$2,800.00
Naval station, Guam.....	7,211.52
Naval station, Tutuila.....	3,500.00
	<hr/>
	\$13,511.52
Salaries of clerks and others returning from abroad and while on leave...	4,402.50
Salaries and expenses of secret-service operatives.....	1,402.50
Traveling expenses of Secretary and Assistant Secretary.....	153.96
Tents, cots, stoves, etc., at Newport, R. I., and navy-yard, Norfolk, Va., during epidemics.....	7,235.91
Fitting up rooms for use of Russo-Japanese peace conference at navy-yard, Portsmouth, N. H.....	3,850.00
Placing tablet on building in which peace conference was held at navy-yard, Portsmouth, N. H.....	250.00
Placing buoys in Samana Bay.....	865.95
Expenses in connection with landing of Marine battalion from U. S. S. <i>Baltimore</i> in China in December, 1905.....	350.00
Repairing damage by typhoon at naval station, Olongapo.....	4,500.00
Surveying land at naval magazine, Dover, N. J.....	100.00
Professional services (surgical) rendered to Midshipman J. R. Branch....	2,250.00
Hire of carriage for senior officer at Manila, P. I.....	900.00
Hire of carriages and other expenses in making official visits abroad.....	500.00

OFFICIAL ENTERTAINING.

By special squadron sent to France to bring home remains of John Paul Jones.....	500.00
In connection with the entertainment of Prince Louis of Battenburg and the officers of the British fleet.....	2,200.00
By the second squadron Atlantic Fleet during cruise abroad.....	719.07
Ceremonies in connection with the interment of John Paul Jones and entertainment of officers of French fleet and others.....	6,653.75
	<hr/>
Total.....	49,363.16

NAVY DEPARTMENT,
Washington, February 4, 1908.

Statement of expenditures under appropriation "Contingent, Navy," 1907.

Salaries of clerks and others at—	
Naval station, Cavite, P. I.....	\$5,313.28
Naval station, island of Guam.....	6,232.69
Naval station, Tutuila, Samoa.....	2,892.97
	<hr/>
	\$14,438.94
Salaries of clerks and others returning from abroad and while on leave....	5,580.89
Salaries and expenses of secret-service operatives.....	209.81
Expenses incidental to hurricane at Pensacola, Fla.....	430.07
Employment of tug at navy-yard, Puget Sound, Washington.....	200.00
Entertainment of foreign naval attachés and Members of Congress at naval review, Long Island Sound, September 3, 1906.....	117.32
Transportation of midshipmen from Naval Academy to Philadelphia and return (football team).....	97.65
Entertainment of officers and men of German ship <i>Stein</i> during visit to Habana, Cuba, in January, 1907.....	150.00
Subscription to newspapers and periodicals for enlisted men on U. S. S. <i>Nipic</i> at navy-yard, Puget Sound, Washington.....	50.00
Purchase of lumber to wall up sides of tents at apprentice seamen camp, navy-yard, Norfolk, Va.....	303.72
Cots for detention camp at naval training station, San Francisco, Cal.....	73.50
Transportation of 6 midshipmen (Naval Academy fencing team) from Annapolis to New York and return.....	67.50

Hire of 10 horses for officers of U. S. S. <i>Louisiana</i> and <i>Rhode Island</i> memorial parade, New York, N. Y.....	\$50. 00
Hire of carriage for senior officer present, Manila, P. I.....	900. 00
Traveling expenses of Secretary and Assistant Secretary.....	267. 26
Carriage hire for official visits abroad (estimated).....	250. 00
Total.....	23, 186. 66

NAVY DEPARTMENT,
Washington, February 4, 1908.

Obligations incurred under appropriation "Contingent, Navy," 1908 to January 31, 1908

Salaries of clerks and others at—	
Naval station, Olongapo, P. I.....	\$2, 700. 00
Naval station, island of Guam.....	8, 711. 52
Naval station, Tutuila.....	4, 000. 00
	<hr/>
Traveling expenses of Assistant Secretary.....	\$15, 411. 52
Salaries and expenses of secret-service operatives.....	37. 20
Salaries of clerks and others returning from abroad and on leave.....	209. 81
Alotment to Rear-Admiral O. H. Stockton, commander in chief, special-service squadron, for entertaining while on cruise in European waters....	1, 591. 26
Alotment for lighting emergency camp at St. Helena, Va.....	1, 000. 00
Alotment for transportation of 30 midshipmen from Annapolis to Philadelphia and return (football team).....	1, 000. 00
Hire of carriage for senior officer present, Manila, P. I.....	140. 00
Alotment to commander in chief, Atlantic Fleet, for entertaining during cruise to Pacific.....	900. 00
	<hr/>
Total.....	23, 289. 79

The CHAIRMAN. Can we safely reduce this amount for the coming year?

Secretary METCALF. I do not think it would be safe to reduce the contingent fund. There always ought to be a safe margin in the contingent fund. That fund comes under the personal supervision of the Secretary and no money is used without his authorization.

Mr. PADGETT. How much money has been appropriated for the purchase of reserve powder?

Secretary METCALF. I have a statement showing the appropriations, the amount on hand, and it makes some corrections in the statement of the Paymaster-General. It gives a full history of the appropriations.

Mr. PADGETT. Please put that statement in the hearings.

(The statement submitted by Secretary Metcalf follows:)

[Memorandum for accountability for reserve ammunition appropriations. Does not consider target practice projectiles and a small portion of obsolete ammunition.]

These appropriations have been as follows:

1892, reserve projectiles.....	\$30, 000
1897, reserve projectiles.....	200, 000
1898, reserve ammunition.....	500, 000
1899, reserve ammunition.....	500, 000
1900, reserve ammunition.....	500, 000
1901, reserve ammunition.....	500, 000
1902, reserve ammunition.....	500, 000
1903, reserve ammunition.....	500, 000
1905, reserve ammunition.....	500, 000
1905, reserve ammunition.....	500, 000
1906, no appropriation.....	
1907, reserve powder and shell.....	2, 000, 000
1908, reserve ammunition.....	4, 000, 000
Total.....	14, 230, 000

Of the 1908 appropriation, about \$3,000,000 only have been actually expended or obligated, making the total \$13,230,000. To this should also be added about \$3,000,000 worth of ammunition which, purchased under the appropriation "armor and armament," is, as already stated, in excess of the requirements of the new ships to be outfitted under that appropriation. The total amount to be accounted for is therefore approximately \$16,000,000.

It is noted in the hearing of the Paymaster-General, page 108, that the cost price of ammunition on hand in shore magazines is \$17,000,000. At the same time he gives an estimate of the value of ammunition aboard ship as \$10,000,000. This is undoubtedly an error. In the hearing of the Chief of Bureau of Ordnance, pages 190-191, the total value of ammunition on hand, afloat and ashore, is given as approximately \$30,000,000. Using the same calculations that formed the basis of this statement, we find that the cost price of the ammunition on board ship is (averaging prices) half this, \$15,000,000. The ammunition on shore, aggregating the other half, or \$15,000,000, of course, includes the unserviceable brown and smokeless powder and that portion of the obsolete ammunition which has been counted. It is considered that this estimate, \$15,000,000, is much nearer the true amount than that given by the Paymaster-General. We have therefore for this purpose a discrepancy of about \$1,000,000, counting cost prices, which ammunition is not on hand. Assuming that the ammunition which was purchased under the naval defense act of 1898 was sufficient to replace that expended in battle in the war with Spain, which assumption is probably not far wrong, the Bureau offers only the following causes to account for the \$1,000,000 discrepancy:

Unavoidable losses in service, such as unstable smokeless powder thrown overboard from ships.

Explosion of powder magazine at Mare Island Navy-Yard.

Explosion and fire at Iona Island Navy-Yard, etc.

CONDEMNATION AND SALE OF OBSOLETE ORDNANCE MATERIAL.

The only other cause that would tend toward a discrepancy would be the use of service ammunition for target practice. But so far as a hasty examination of the Bureau's records show, we have not exceeded the target-practice allowance, and have, if anything, run inside of it.

The above estimates are necessarily obtained by short-cut methods, but are not thought to be far in error. It is surprising that the difference between the cost price of ammunition on hand and the total amount expended in its purchase should be so little, as in the ordinary course of events when developments in ordnance are so rapid it would be thought that the value of obsolete material alone would be several times as much as this.

It is noted that for the year 1906 (July 1, 1905, to July 1, 1906) no appropriation for reserve ammunition was made. In July of that year (1905) a very careful count was made from the Bureau's store cards and it was estimated that \$9,126,000 would be required (at prevailing prices) to increase the reserve supply up to the point of one reserve; that is, to refill every ship's magazines once. The addition of new ships has increased this to \$9,803,000, of which \$6,000,000 has already been appropriated. The price of projectiles having advanced, the Bureau is this year asking for \$4,000,000, \$2,000,000 to be made now available to complete the one reserve. (All advices and recommendations, including that of the Joint Army and Navy Board of 1905, is that the battle ships' main batteries should have at least *two* reserves.)

Attention is called to the fact that the appropriation for reserve ammunition for the years 1907 and 1908 were separate and under a heading by themselves. This necessitates keeping an ammunition account under each of the appropriations for these years. Formerly, from 1892 to 1905, the appropriations for reserve ammunition were included under the heading "Ordnance and ordnance stores," and the ammunition was borne on the books as general stock. This was much the better arrangement, since powder which deteriorates and projectiles which become obsolete could often be used for target practice and be replaced out of the funds available for target-practice ammunition. It is again recommended that this practice be reverted to, and all ammunition be bought under one head, and that the authority already asked for be given to so transfer all ammunition now on hand.

It should also be noted that the estimates made in July, 1905, take account of amounts only on hand at that time, and that their cost value was not considered. This would account for any discrepancy that this estimate would seem to have when compared with that given in the first part of this memorandum with respect to the accountability for old appropriations. This estimate (of 1905) was undoubtedly very close for the prices which then prevailed.

This Bureau is able to supply quite accurate information as regards the amounts of ammunition on hand, but when the cost prices or valuation is also given the information is necessarily not so accurate, since they can only be made by averaging cost prices over a number of years.

Mr. PADGETT. I would like to know how much reserve powder you have on hand.

Secretary METCALF. For the purpose of estimates all powder which would not be required for the first outfit of ships building or old ships in reserve was computed as reserve powder. This consists of about 8,500,000 pounds. In the memorandum to be inserted in the hearing the computation is on the basis of charges.

Mr. PADGETT. It is in the shape of a combination?

Secretary METCALF. Yes; the computations were made on that basis. I have a memorandum concerning the unserviceable brown powder in store.

Mr. PADGETT. Is there any difference between that statement and what was said heretofore by the Paymaster-General?

Secretary METCALF. There are 1,587,000 pounds of brown powder, the cost price of which was \$506,000, distributed among the various naval magazines. It is useless, and of no account. The Navy turned over some 800,000 pounds to the War Department, but it has not been used. We have advertised it for sale and the best bid received was 1 cent per pound, which would not pay to move it.

Mr. PADGETT. It has been suggested by another member of the committee, Mr. Loud, who is not here, that perhaps the powder could be transferred to the War Department for use in blasting at the Panama Canal. Could it be used for that?

Secretary METCALF. This is what Admiral Mason says:

It could be used for blasting purposes only by boring very deep and going to extraordinary expense to tamp the large charges that would be required to get any effect. Since the commercial detonating explosives are so cheap, and are efficient with comparatively little tamping, the waste of labor in using the brown powder instead of dynamite, blasting gelatine, etc., would probably very much more than offset the price of the explosive saved thereby.

Mr. PADGETT. It is practically useless for all purposes?

Secretary METCALF. Yes, sir; it is practically useless for all purposes. We will have to dispose of it in some way. It is taking up storage room, and we will have to take the best price we can get, even 1 cent a pound.

Mr. PADGETT. Admiral Mason stated that that was for delivery and the 1 cent a pound would not pay for the delivery?

Secretary METCALF. The powder is in the magazines, and if we can get a cent a pound we had better take it. We have got to get rid of it in some way.

Mr. LOUDENSLAGER. This statement does not show the amount of powder on hand; it shows the value of the ammunition?

Secretary METCALF. Yes, sir.

Mr. PADGETT. Can you put into the hearing a statement of how much powder is on hand in the reserve supply?

Secretary METCALF. Yes, sir.

The serviceable smokeless powder counted as reserve consists of about 8,500,000 pounds. This, it is to be noted, is powder only, which is only a part of the "ammunition details" which go to make up ammunition.

Mr. LOUDENSLAGER. If that powder could be used, as I understand it can not be now, but if authority was given for its use, could we not then, without destroying the efficiency of the service, cut down the present appropriation?

Secretary METCALF. The appropriation for reserve ammunition?

Mr. LOUDENSLAGER. Not for reserve ammunition, but for ammunition. If you could be authorized to use it now, could we not cut down the present appropriation?

Secretary METCALF. No, because that powder was all counted as "reserve" powder for the purpose of making our estimates. The only difference would be caused by the economy which would be the result of that action.

Mr. LOUDENSLAGER. I am speaking of the reserve ammunition. Of that reserve probably two or three million pounds are useless, and the other would soon become useless, as it is impossible to use it now except when an emergency arises, and the point suggested to me is this, if 13,000,000 or 14,000,000 pounds or a portion of that, four or five million pounds, could be used this year, could we not cut down the appropriation for ammunition?

Secretary METCALF. Used for what purpose?

Mr. LOUDENSLAGER. On board the boats.

Secretary METCALF. Part of it can be used, but no such authorization can affect the amount immediately necessary.

Mr. LOUDENSLAGER. If it is in reserve it could not be used if it were purchased under the appropriation for reserve ammunition?

Secretary METCALF. No; it could not, if purchased under those appropriations of 1907 and 1908.

Mr. LOUDENSLAGER. If we authorized its use now without an emergency, then could the appropriation for powder be reduced?

Secretary METCALF. No, sir. In the first place, we have not a sufficient supply of ammunition on hand now; we must always be prepared for war. We have only one-half a fill for our battle ships in addition to what they have at present, and there should be at least two fills for every battle ship. I talked with Admiral Mason a number of times and he has urged upon me very strongly the great necessity for an increase in our reserve ammunition, especially the torpedoes.

Mr. PADGETT. Do you think it is well to have the item read "reserve ammunition?" Would it not be better to strike out the word "reserve" and make it "ammunition for the Navy?"

Secretary METCALF. Yes, sir; it should be used for any purpose, and all ammunition should be carried under one title.

Mr. BUTLER. Could you not use the oldest powder in point of time for target practice and such ordinary use?

Secretary METCALF. We are doing that now—using that ammunition in target practice—when we can, but the question of accounts and titles handicaps us very much in most cases by the transfers required, and often absolutely prevents doing what in the interests of economy we know to be best.

Mr. BUTLER. Then to strike out the word "reserve" would not help you any?

Secretary METCALF. I may be mistaken about my interpretation of that word; we may possibly have the right to use the reserve ammunition at any time. We can use all except about \$3,000,000 worth purchased under "Increase of the Navy" and that purchased under "Reserve ammunition for 1907 and 1908." The change would help us very much.

Mr. MUDD. As a matter of fact, you use it whenever you need it?

Secretary METCALF. Yes, sir; we do where we can.

Mr. PADGETT. I understand the practice is that they keep this reserved amount on hand, but when they buy new powder they put it in the reserve and use the old powder?

Secretary METCALF. Yes, sir; when that is practicable.

Mr. BUTLER. There is no way to save this loss that we have every year, except to use the oldest of it for our ordinary use and purposes?

Secretary METCALF. I do not see any way of avoiding it.

Mr. BUTLER. There is a certain amount of deterioration?

Secretary METCALF. Yes, sir.

Mr. BUTLER. This stock of powder that you speak of is the old brown powder?

Secretary METCALF. Yes, sir; the powder that was used right after the black powder.

Mr. BUTLER. It was used perhaps some six or eight or ten years?

Secretary METCALF. Yes, sir.

Mr. PADGETT. You also have some useless black powder on hand?

Secretary METCALF. No, sir; we have none which can not be used for some purpose.

Mr. LOUDENSLAGER. If the ammunition you have on hand purchased under the appropriation entitled "reserve ammunition" can not be utilized at the present time, it can not be utilized by virtue of the language, and we put in the language that the powder already purchased under the appropriation for "Increase of the Navy, armor and armament," it can be used?

Secretary METCALF. That would authorize the Secretary of the Navy to use it, if Congress authorized the transfer of all ammunition now on hand to one title, for instance, as if purchased as a subhead to the appropriation "Ordnance and ordnance stores," and made all future appropriations under the same heading.

Mr. LOUDENSLAGER. If the other powder can not be used, should not those words also be inserted under "reserve ammunition?"

Secretary METCALF. Yes, sir.

Mr. LOUDENSLAGER. How long would it be before this powder was materially affected?

Secretary METCALF. You would have to ask that question of the experts on powder. I am not an expert on powder.

The CHAIRMAN. In the deficiency bill approved March 4, 1907, the following provision was inserted:

The Secretary of the Navy is hereby authorized to continue to employ and pay out of the lump appropriations of the several bureaus of the Navy Department such classified civil-service employees as may be necessary to properly perform the clerical, drafting, inspection, messenger, and other classified work at the several navy-yards and stations, and that he be directed to submit to Congress, at the beginning of the next session, the amounts probably to be required during the fiscal year 1909 for such services under the several lump appropriations referred to for employees performing classified work at navy-yards and stations.

In pursuance of that law you did furnish in the estimates a statement of the classified employees at the various navy-yards and stations paid out of these lump appropriations. The clerk of the committee has added them up and finds that under the Bureau of Ordnance the estimate is \$323,000; Bureau of Equipment, \$182,000; Bureau of Supplies and Accounts, \$243,000; Bureau of Yards and Docks, \$219,000; Bureau of Steam Engineering, \$241,000, and Bureau of Construction and Repair, \$572,000, making in all a total of approximately \$1,783,000. I have just stated the round numbers.

I have your letter in connection with that which I will insert in the record.

The letter referred to is as follows:

NAVY DEPARTMENT,
Washington, January 20, 1908.

SIR: The deficiency act approved March 4, 1907, contains the following provision:

"The Secretary of the Navy is hereby authorized to continue to employ and pay out of the lump appropriations of the several bureaus of the Navy Department such classified civil-service employees as may be necessary to properly perform the clerical, drafting, inspection, messenger, and other classified work at the several navy-yards and stations, and that he be directed to submit to Congress, at the beginning of the next session, the amounts probably to be required during the fiscal year nineteen hundred and nine for such services under the several lump appropriations referred to for employees performing classified work at navy-yards and stations."

This has been construed by the Department as authority to continue the employment of the clerks, draftsmen, inspectors, and others referred to until Congress directs otherwise. If it is considered necessary to insert a similar provision in each naval act, I have the honor to suggest the following modification in view of section 1545 of the Revised Statutes, which provides that salaries shall not be paid to any employees in any of the navy-yards except those who are designated in the estimates, and that all other persons shall receive a per diem compensation for the time during which they may be actually employed:

"The Secretary of the Navy is authorized to fix on a per annum basis the rate of pay of classified employees who are paid from lump appropriations under the authority granted in the deficiency act approved March 4, 1907."

If it is not thought desirable to embody under "Civil establishment" all the classified employees now carried on a per diem basis and paid from lump appropriations, uniformity could be secured by eliminating all classified positions under "Civil establishment," inserting the above modification of section 1545 of the Revised Statutes, and adding to the amounts that will probably be required for such services the amount thus eliminated from "Civil establishment." Appendix M, Estimates of appropriations for 1909, pages 598 to 609, inclusive, contains a statement of classified employees at navy-yards and stations paid from lump appropriations as of date June 30, 1907, and the probable amounts required for such service during the fiscal year ending June 30, 1909.

Very respectfully,

V. H. METCALF,
Secretary.

HON. GEORGE EDMUND FOSS,
Chairman Committee on Naval Affairs,
House of Representatives, Washington, D. C.

The CHAIRMAN. I would like to ask you whether you have any suggestion to make as to how these employees should be provided for in the naval appropriation bill, whether we ought to continue as we have been doing, paying these employees out of lump appropriations or whether they should be put in a separate paragraph?

Secretary METCALF. I think they should be paid out of the lump appropriations and they ought to be put on an annual basis. As matters now stand the per diem employees have no annual leave during first year of employment. They must have served at least a year before they are entitled to any leave. A clerk on the annual basis gets thirty days' annual leave and may be given an additional thirty days on account of sickness, while a per diem employee gets none until he has served one year, and then he gets one and one-fourth days a month, fifteen days, and yet he has worked right alongside of an annual employee doing the same kind of work and not getting the same treatment.

The CHAIRMAN. As I understand, an annual employee gets thirty days' leave of absence?

Secretary METCALF. Yes, sir.

The CHAIRMAN. And thirty days' sick leave in addition to that?

Secretary METCALF. Yes, sir.

The CHAIRMAN. And the per diem man gets fourteen days' leave?

Secretary METCALF. He gets fifteen days.

The CHAIRMAN. That is all?

Secretary METCALF. Yes, sir; of course he gets the holidays.

Mr. PADGETT. Does he get fifteen days' leave by statute or regulation?

Secretary METCALF. I think it is by statute.

Mr. BUTLER. Have you the authority to place these employees on an annual basis?

Secretary METCALF. No, sir. Section 1545, Revised Statutes, presents it.

The CHAIRMAN. Is it not more economical to keep them on the per diem basis?

Secretary METCALF. The clerical force in the navy-yards is the poorest paid force of any Department of the Government; there is no question about that. In many of the navy-yards they receive \$900 and \$1,000 and they have been given no increase of compensation for ten or fifteen years. It is not right.

Mr. DAWSON. Under the present system you have the authority to fix the compensation?

Secretary METCALF. Yes, sir; limited to the appropriation. Of course if this clause in the deficiency bill approved March 4, 1907, is not disturbed we can continue it.

Mr. BUTLER. So if we make no change in the existing conditions, you will continue to use the appropriations as heretofore?

Secretary METCALF. Yes, sir.

The CHAIRMAN. In some of the appropriation bills, for instance, the army bill, they provide for so many clerks of such a class or so many draftsmen, and in the post-office appropriation bill I think they provide for so many clerks. The question in my mind is whether we should not do the same thing in connection with our bill, whether there would be any objection to our providing for so many clerks and draftsmen?

Secretary METCALF. Before doing that you should have a statement showing the number employed at each yard and in each bureau and the necessity therefor.

The CHAIRMAN. What we want to know is just the amount of money we are expending for clerical services, and if the Department could work out some scheme like that it would certainly give to Congress every year the information which they are entitled to and at the same time accomplish the end desired.

Secretary METCALF. Yes, sir.

Mr. TALBOTT. There would be no trouble in making estimates?

Secretary METCALF. None at all. I think the system of lump appropriations results in economy to the Government, because where you provide for so many clerks, as a rule, they keep the men on whether they are required or not, and when there is a falling off in the work, as in the Washington yard and other yards, if it is not necessary to keep the clerical force, a certain portion is always discharged.

The CHAIRMAN. The situation is a little different in the Navy by reason of the fact that we are building it up and we may need more men at one time than at another time?

Secretary METCALF. Yes, sir.

The CHAIRMAN. Under your present arrangement you can take the men on or discharge them as you see fit?

Secretary METCALF. Yes, sir.

Mr. BUTLER. Either mechanics or clerks?

Secretary METCALF. Yes, sir; if they are kept on the per diem basis.

Mr. DAWSON. Can you put into the hearing a statement showing how much variation there has been from time to time in the number of clerks employed in the yards?

Secretary METCALF. Appendix M, pages 598 to 609, inclusive, "Estimates of appropriations, 1909," gives the number of classified employees at navy-yards employed June 30, 1907, and paid from lump appropriations. The variation in the number of such employees could be shown by having prepared similar statements covering previous years. This, however, would involve a great deal of clerical work and could not be submitted in time for use in connection with the pending bill. When Congress is in session the Department is usually overworked.

The CHAIRMAN. I would like to ask whether you have given enough attention to the subject of administration of the navy-yards to inform us as to whether or not you have any new plans of administration? That is a subject which has been given a great deal of attention by members of the committee.

Secretary METCALF. I hope we can reduce expenses at the navy-yards. I think it is purely a matter of administration. We have tried it at the New York yard, where we have consolidated the pattern shops, the paint shops, and the carpenter shops. It has worked very satisfactorily. It has been in operation for some time, and if at the expiration of three months it still works satisfactorily we are going to put it in operation in the other yards. There is a duplication in the yards. At Bremerton I found a very fine shop filled with machines and tools for a single man. All the carpenter work could have been done by Yards and Docks. Wherever we can possibly consolidate, we are going to do so. I think we have too many naval stations. In my annual report I give a list of the navy-yards and stations, the appropriation for each yard and station, and the cost of maintenance and value of the work. I can not make a recommendation to you this year, but I hope before Congress next convenes to make some recommendation in regard to the various stations and yards.

Mr. BUTLER. Looking to a reduction of the expense in maintaining them?

Secretary METCALF. Yes, sir.

Mr. DAWSON. And looking to a reduction in the number?

Secretary METCALF. Yes, sir.

Mr. OLCOTT. That will also cover the question of water facilities; the draft of water at the several yards?

Secretary METCALF. Yes; we can easily furnish that.

The CHAIRMAN. In that connection I would like to ask you about Mare Island. The members of the committee asked questions of the Chief of the Bureau of Yards and Docks when he was before the committee, and he informed us that there had been a commission, or one would be appointed, to look into the subject.

Secretary METCALF. I suggest in my annual report that Congress authorize a commission to be appointed by the President. I think that could be done without any authorization from Congress. The President could appoint a commission consisting of two army engineers and one naval officer to make a complete examination of the channel at Mare Island and make a recommendation as to its improvement. Since the yard was first established the channel has filled in between 8 and 9 feet and at the bar about 16 feet. That was due, undoubtedly, to hydraulic mining. Hydraulic mining has been stopped under the State law. Mare Island is one of the most important yards we have in the country. Strategically, it is the best located yard. The only drawback is the depth of water. All the repair work on the Pacific coast from 1860 to 1902, with the exception of about \$125,000 of work done at Bremerton between the years 1897 and 1902, has been done at Mare Island. We only have one dock at Mare Island at the present time, and that is not large enough for the battle ships.

The CHAIRMAN. What is the depth of water there?

Secretary METCALF. At mean low tide the depth of water on the bar is about 21½ feet. I think there is a rise and fall in the tide of 6 feet. At Pinole Point, which was dredged under the river and harbor act, they have a channel 300 feet wide; it was recently dredged to a depth of 30 feet, but has filled in about 7 feet since 1906.

The CHAIRMAN. Is that the point on the way up to Mare Island?

Secretary METCALF. Yes, sir.

Mr. THOMAS. What would it cost to put that channel in shape so that battle ships could go up to the navy-yard?

Secretary METCALF. I think the trouble in the past has been that Congress has appropriated small amounts from year to year. There has been practically no intelligent action. Now, there ought to be a general scheme for the improvement of the channel, and then whatever money is necessary ought to be appropriated. In my judgment, if we had a dredge there owned by the Government, which could be built at the navy-yard, we could keep the channel open all the time.

Mr. DAWSON. As I understand, the filling in is caused by the silt being washed down by some creek?

Secretary METCALF. It was, in my judgment, caused originally by the hydraulic mining in the mountains, where they take an immense hose and direct it at the mountain side and wash the whole thing out. The cultivated area in California has largely increased during the past few years, and in the winter season when they have heavy storms a lot of the soil is washed into the creeks and then it comes down into the bay and the Mare Island shoals.

Mr. DAWSON. The State law has stopped hydraulic mining?

Secretary METCALF. Yes, sir.

Mr. BUTLER. When was the act passed which stopped the hydraulic mining?

Secretary METCALF. Some years ago; fifteen or twenty years ago.

Mr. BUTLER. The channel has been filling up since that time?

Secretary METCALF. Yes, sir.

Mr. LILLEY. Then that would not be on account of the mining.

Secretary METCALF. It was due in the first place to the mining.

Mr. HOBSON. Does your proposition for dredging and maintenance of the channel through the use of the dredge contemplate the construction of dams so as to reduce the amount of sediment?

Secretary METCALF. No, sir. I think before any money is expended in dredging there ought to be a thorough examination made of the channel by competent engineers and a report made. I think possibly we might get a report before the adjournment of Congress.

Mr. LILLEY. How much money has been expended in dredging the channel?

Secretary METCALF. I think the navy-yard was established in 1853, and there has been spent for dredging, all told, about \$500,000.

Mr. LILLEY. Has the river and harbor act carried some money in addition to that?

Secretary METCALF. No, sir; not to my knowledge.

Mr. LILLEY. How long has it been since a battle ship has been at Mare Island?

Secretary METCALF. There is no dock there large enough for a battle ship, but the *California*, a 14,500-ton ship, has been to Mare Island; the work was completed there. A new dock is being built at the yard and we hope that it will be completed in the course of the next eighteen months.

Mr. HOBSON. What would you estimate as the present value of the plant at Mare Island?

Secretary METCALF. I think it has cost the Government, all told, over \$17,000,000. The present value is over \$9,000,000.

Mr. LILLEY. No matter how valuable or efficient the plant may be, it is of very little use unless you can get battle ships to it?

Secretary METCALF. All of the repair work on the Pacific coast practically has been done at that yard.

Mr. LILLEY. But you can not get the battle ships there?

Secretary METCALF. No; but they have done the repair work, not only for the ships of the Navy, but for the transports of the Army.

Mr. LILLEY. No battle ships?

Secretary METCALF. There are only three battle ships on the Pacific coast. The *Oregon*, *Ohio*, and *Wisconsin* were built out there.

Mr. LILLEY. Was the *Oregon* ever up to the dock at the Mare Island Navy-Yard?

Secretary METCALF. I think not.

Mr. LILLEY. Do you not think that it would be unwise to expend any money on those yards if you are likely to recommend that they be abandoned, until you have reached a conclusion?

Secretary METCALF. On general principles, yes; but from my knowledge of the Mare Island Navy-Yard I should not recommend that it be abandoned.

Mr. LILLEY. I had in mind, perhaps, Charleston, or Portsmouth, or Port Royal, or New Orleans, or Key West more particularly than Mare Island.

Secretary METCALF. I intend to make a recommendation to use the dock and yard at Charleston as a base for the torpedo flotilla.

Mr. LILLEY. Do you not think that until you have determined which of the yards should be abandoned that we should not spend any more money on them?

Secretary METCALF. I do not think you should spend any more money on Port Royal, New Orleans, San Juan, or Culebra.

Mr. DAWSON. What have we at Port Royal?

Secretary METCALF. It has been practically abandoned.

Mr. HOBSON. If we should decide to transfer the yard at Mare Island to some other place in San Francisco Bay, what would you estimate as the probable time before that yard would be available for naval purposes?

Secretary METCALF. That would depend entirely upon the appropriations. If Congress made a lump appropriation sufficient to make the change, I think that we could put up the buildings and equip the yard in probably five or six years. It might take longer than that to build the docks. We have got to do something on the Pacific coast. As matters now stand we have only one dock capable of taking in a modern battle ship, and that is the dock at Bremerton. There is no dock at Mare Island, at the present time, large enough to take in a battle ship. There is one other dock in San Francisco Bay. I sincerely hope you will increase the appropriation for the new dock at Bremerton so that we can go ahead and complete it at once, and also authorize the construction of another dock at Bremerton, because you have received full value for every dollar spent at that yard, in my judgment. You have an ample depth of water; you have water there for the battle ship fleets of the entire world. When you authorize the construction of a dock I think it would be much better if you would allow the Department to go ahead and build the dock by day labor. We have had trouble with practically every dock we have built. The contractor at New York has forfeited and declined to go ahead with the work. We had to cancel the contract. We had to advertise for bids, and there is the question as to the responsibility of the lowest bidder, and so on. I think we can build the docks just as cheaply as any contractor.

Mr. DAWSON. And you can do the work more quickly?

Secretary METCALF. Yes, sir. They are subject to the eight-hour law the same as we are, because the work is done on Government property. The only difference is in the annual leave. I suppose you noticed the big crack in the concrete dock at New York.

Mr. DAWSON. At League Island there is a dock in a state of decay because of litigation between the Government and the contractor?

Secretary METCALF. Yes, sir. The Government ought not to expect the contractors to go ahead and build the docks at a loss; they are at least entitled to a fair profit.

Mr. BUTLER. Is that a difficult place to build a dock?

Secretary METCALF. It is reported that the docks have been built there quite reasonably.

Mr. BUTLER. Two million dollars is asked for a stone dock?

Secretary METCALF. Those are the best docks in the long run. The stone dock at New York was built fifty years ago, and it is just as good to-day as the day it was finished, in 1851. There have been no repairs to speak of.

Mr. OLCOTT. Referring to what you said in regard to the Pacific coast, do you think it is important that we should start to do something at Pearl Harbor?

Secretary METCALF. Yes, sir.

Mr. OLCOTT. To afford additional protection to the Pacific coast?
 Secretary METCALF. Yes, sir. The general board has strongly recommended that we build a dock at Pearl Harbor.

Mr. HOBSON. In view of the number of small vessels as well as battle ships in the Pacific, do you think it would be advisable to provide for a second-class or a third-class dock at Pearl Harbor in addition to the first-class dock for battle ships, to be completed in a short time and to be available for smaller vessels?

Secretary METCALF. I think if we build a dock we want a dock sufficiently large to take in any type of vessel. I think that is better than to build a small dock.

Mr. HOBSON. But sometimes you have a lot of smaller craft.

Secretary METCALF. We could have a floating dock there.

The CHAIRMAN. With the machines, tools, and everything on it?

Secretary METCALF. Yes, sir.

The CHAIRMAN. A complete navy-yard?

Secretary METCALF. Yes, sir.

Mr. LILLEY. I do not think there is a sufficient depth of water there.

Secretary METCALF. The channel will have to be dredged. I understand that the coral is soft enough to drive piles through.

Mr. HOBSON. They have 8 to 9 fathoms of water there.

Secretary METCALF. I think it would be a very good idea to buy Hunters Point dry dock, at San Francisco, or make some arrangement with the owner for the use of the dock.

Mr. BUTLER. That is owned by whom?

Secretary METCALF. I do not know.

Mr. BUTLER. Is it a stone dock?

Secretary METCALF. I have not inspected the dock.

Mr. DAWSON. Have you any special recommendation to make to us with regard to the defense of Hawaii and the Pacific coast?

Secretary METCALF. No. I would not want to make any special recommendation at present. The coast defense comes under the Army.

Mr. BATES. Have you made any recommendation concerning the improvement of Pearl Harbor?

Secretary METCALF. Yes, sir; I made a recommendation for a dry dock.

Mr. BATES. Do you think that is of importance at this time?

Secretary METCALF. I think it is of very great importance. The General Board thinks it is one of the most important things we have to do.

The CHAIRMAN. Have you any recommendation as to the Charleston Navy-Yard that you desire to submit to the committee at this time?

Secretary METCALF. Yes, sir. I visited the Charleston Navy-Yard last spring and made a pretty careful inspection and examination of the yard. I was somewhat gratified at the progress which had been made. I wish we had the magnificent dock at that yard in one of the other yards. I have put the submarines and the torpedo boats on the Atlantic under the command of Lieutenant-Commander Marsh. I found that practically in the past submarines and torpedo-boat destroyers were tied up in the navy-yards along the wharves. I have issued instructions that they should get the crews for the submarines,

as well as the proper officers, and work the submarines just exactly the same as they work the other ships of the service. Lieutenant-Commander Marsh addressed a letter to me in which he strongly recommends that the Charleston Navy-Yard be used as a base for the submarines and the torpedo boats and destroyers. I referred that letter to the General Board, and the General Board returned it with this indorsement:

1. Respectfully returned to the Navy Department.
2. It is the belief of the General Board that in time of peace the training of the crews of torpedo craft in commission and reserve can best be accomplished under one head and at one place, and at the same place it is also desirable that ample resources for the repair of such vessels shall exist.
3. It is likewise the opinion of the board that Charleston S. C., possesses advantages which render it desirable for selection as a base of the nature indicated. The climate of Charleston is well adapted for the purpose. The navy-yard at this place is approaching completion and may be utilized upon completion of the power and pumping plants now in course of installation.
4. In time of war the concentration of torpedo craft at any one place would be inexpedient, and a certain number of these vessels would have to be assigned to each naval district. In accordance with the recommendations of the board of which the present Rear-Admiral Converse was senior member some work has been done at Bradford, R. I., and Norfolk, Va., with a view to making those places bases for torpedo craft, and they could be so used during war or maneuvers. The Converse board likewise recommended that the Charleston Navy-Yard be developed for the same purpose.
5. The General Board recommends that the Charleston Navy-Yard be equipped for torpedo-boat repair work of all sorts, that a sufficient number of slips shall be built to provide for torpedo boats in reserve and for submarines, and that as soon as the yard is ready all the reserve torpedo flotilla—both surface and submarine—shall be sent to this yard which should thereafter be regarded as a torpedo-boat headquarters.

GEORGE DEWEY,

Admiral of the Navy, President General Board.

Mr. LILLEY. Mr. Secretary, this was not the original purpose for which this yard was planned or started?

Secretary METCALF. Of course I know nothing about the original purpose. It was planned as the other yards were planned.

Mr. LILLEY. In its present condition, if you had not been there you would not assume that it was built for a torpedo-boat station?

Secretary METCALF. I think it is a desirable location.

Mr. LILLEY. The purpose now is to convert this navy-yard into a torpedo-boat station?

Secretary METCALF. It will be used for that purpose, but it is necessary to have the yard for other purposes. There is a dock there large enough to repair any of the ships.

Mr. LILLEY. But too large for the torpedo boats?

Secretary METCALF. No; you can put two or three of them in it.

Mr. LILLEY. If the yard had not been started and was not there, could not everything be done at Port Royal?

Secretary METCALF. I have never been at Port Royal and do not know what facilities they have.

Mr. LILLEY. They have spent \$2,000,000 at that yard, and it is now to be abandoned, as I understand, and converted into a naval training station or a torpedo-boat station. There are other places quite as good for that purpose. The point I desire to make is that the yard was a bad blunder in its conception, and that we have been going on from bad to worse, spending many million dollars, and now it is useless as a navy-yard, but for small craft we can convert it into a naval training station or a torpedo-boat station.

Secretary METCALF. I do not regard Charleston in any sense as a useless yard.

Mr. LILLEY. For battle ships?

Secretary METCALF. No, sir; battle ships can go into Charleston for repair work.

Mr. LILLEY. Has there been one there?

Secretary METCALF. The machinery has not been installed in order to do repair work.

Mr. LILLEY. Has there ever been a first-class battle ship in Charleston Harbor?

Secretary METCALF. Not to my knowledge.

Mr. LILLEY. I understand from the information I get from naval officers that it is a pretty risky business to take a battle ship in there at all, and it would seem to be the part of wisdom, when we put \$10,000,000 into one ship, not to take any chances with her?

Secretary METCALF. Many of the yards we now have were established many years ago, and they were ample for all ships at that time; but there has been improvement all along the line.

Mr. HOBSON. Has not New England proportionately more navy-yards than any other part of the coast line?

Secretary METCALF. Yes, sir.

Mr. HOBSON. Do you think, Mr. Secretary, that as time advances and the Panama Canal is completed there will be an increasing importance for having navy-yards and docks and facilities in the Southeastern Atlantic coast and Gulf coast?

Secretary METCALF. There is going to be very great need of a dock at Guantanamo.

Mr. HOBSON. Do you think as time advances that the importance of that part of the coast line for naval purposes and for naval defense will increase?

Secretary METCALF. I think it will undoubtedly increase, but when it comes to the question of recommending a new yard or dock I should feel like relying almost entirely upon the officers of the Department, the experts who have had the experience.

Mr. LILLEY. Was the Charleston yard ever recommended by the Navy Department?

Secretary METCALF. I know nothing about the Charleston yard. I only know what I saw when I was there. The buildings are well constructed, they have a magnificent dock, and they have a sufficient depth of water. It is just as fine a yard as any we have in the United States.

Mr. LILLEY. Can you put into the hearings a statement showing whether the Department recommended that yard in the beginning or not?

Secretary METCALF. I think there was a board appointed and that the board recommended the yard.

Mr. LOUDENSLAGER. You said something about Guantanamo. You thought that we should have a base established there in order to protect the vessels going to and coming from the Isthmus?

Secretary METCALF. Yes, sir.

Mr. LOUDENSLAGER. Would it not be much more advisable to have a naval station somewhere near the entrance to the canal, where our boats could, within a radius of 50 or 100 miles, get to the navy-yard, rather than go eight or nine hundred miles?

Secretary METCALF. Where can you find such a place?

Mr. LOUDENSLAGER. Is there not a place just north of the Isthmus where there is a splendid harbor? Some one told me there was.

Mr. LILLEY. There is no water there.

Secretary METCALF. As a matter of fact, the General Board and the Joint Board also have made a very strong recommendation in regard to Guantanamo.

Mr. HOBSON. In making recommendations for the location of naval stations does not the General Board take account of the question of defense?

Secretary METCALF. Yes, sir.

Mr. LILLEY. Has the General Board decided that Guantanamo can be properly defended?

Secretary METCALF. I suppose the General Board has decided that. The General Board is composed of some of the very best officers we have in the service and their whole time is devoted to studying those questions. I think myself it is an ideal place.

The CHAIRMAN. What recommendation have you to offer on the subject of a naval programme for the present year?

Secretary METCALF. I made a recommendation, Mr. Chairman, in my annual report, and I see no reason to change my view. I recommended 4 battle ships of the *Delaware* type, 4 scout cruisers of the *Chester* type, 10 destroyers, 4 submarines, 1 ammunition ship, 1 repair ship, 4 colliers, and 2 mine-laying ships.

The CHAIRMAN. How many colliers did you recommend?

Secretary METCALF. I recommended four.

Mr. DAWSON. At a total cost of about \$63,000,000.

Secretary METCALF. Sixty-nine million two hundred and seventy thousand dollars is the estimate, but I think it can be reduced. I think it is a mistake to limit the Department in awarding contracts. That is, to provide, as you have in the act of March 2, 1907, that "not more than one battle ship and one torpedo-boat destroyer, or two torpedo-boat destroyers, shall be built by one contracting party."

The CHAIRMAN. The provision to which you refer reads as follows:

Not more than one battle ship and one torpedo-boat destroyer, or two torpedo-boat destroyers, shall be built by one contracting party.

I understand that is the provision which you do not recommend this year?

Secretary METCALF. I do not think there ought to be that limitation. For instance, we will say that the Fore River Ship Building Company offers to build a ship for \$4,000,000, and the Newport News Ship Building Company offers to build a ship for \$4,500,000. If I were permitted to say to the Newport News Ship Building Company, "If you will build that ship for \$4,000,000, I will give it to you, otherwise I will award the contract for two of the ships to the Fore River Ship Building Company," it would result in direct benefit to the Government. The limitation cost the Government this year over \$500,000.

Mr. BUTLER. If one firm bid more cheaply than the other you would let them build the ships?

Secretary METCALF. There is no question, of course, but what they could build two ships proportionately for less than they could build one.

Mr. THOMAS. Now, they only bid on one ship?

Secretary METCALF. Yes, sir; we can not build more than one battle ship and not to exceed two destroyers in one yard.

Mr. THOMAS. You have not had any figures on that?

Secretary METCALF. No, sir.

Mr. BUTLER. Do you recommend that the battle ships we may provide for this year shall be of the same class as the *Delaware*?

Secretary METCALF. Yes, sir.

Mr. BUTLER. We have two of those large ships now under construction, 20,000 tons each. According to the military arrangement of the ships, according to numbers or collections of ships, it is desired to have four ships of the same size altogether?

Secretary METCALF. It is not at all necessary. It is supposed that in the future you will build ships of the same class.

Mr. BATES. That is, four of a kind?

Secretary METCALF. That is, there will be no battle ship in the future of less than 20,000 tons.

Mr. HOBSON. Would you not regard it as advisable for you to have discretion in the matter of the details of the ships? For instance, I believe that before the ships are completed we will have reached 25,000 tons, or near that, and in order for you to be equal or ahead of the next point of evolution instead of being behind, it is necessary for us to make the law so that you will not be required to build these ships just like the others?

Secretary METCALF. I would like to have that restriction this time, because we propose practically to use the same plans. The General Board has recommended four ships of the *Delaware* class, as has also the Board on Construction. So there is practical unanimity in the Department. In the future I think your suggestion might be a very good one, but this year's plan has been very carefully considered, and the experts of the Department have all agreed upon ships of this class.

Mr. OLCOTT. Have you considered the propriety of building some of these ships in the navy-yards?

Secretary METCALF. That, under the act, would be left largely to the discretion of the head of the Department, unless changed. I would like to build one ship at a Government yard for the purpose of seeing in just what time we could build a 20,000-ton battle ship. I think by working three 8-hour shifts we can build one in a year after the receipt of the material. The keel of the *Dakota* was laid on the 16th of December last, and they expect to launch her next December.

Mr. BUTLER. Would it not be possible for the Department, immediately after the ships being authorized by Congress, to advertise for bids on two ships of the *Delaware* class? Do you know of any reason why there should be any delay in asking for bids on two ships of the *Delaware* class?

Secretary METCALF. I think we advertised after Congress adjourned last session. The appropriation was not available until after the 1st of July.

Mr. HOBSON. Would you recommend that special authorization be given to the Navy Department, irrespective of these four battle ships, to build a battle ship at one of the Government yards, with a

view to establishing the time that is necessary to build such a battle ship in case an emergency should arise?

Secretary METCALF. I would not want to exceed four battle ships at this particular time.

Mr. THOMAS. Is any one navy-yard fully equipped to build a battle ship?

Secretary METCALF. Yes, sir; there are two navy-yards fully equipped.

Mr. THOMAS. Without any additional appropriation for new machinery and new tools?

Secretary METCALF. Yes, sir. They built the *Connecticut* at the New York yard.

Mr. DAWSON. Regarding this building programme, supposing the committee in its wisdom only provided two battle ships, would that carry with it a corresponding reduction of these other ships?

Secretary METCALF. No, sir; we ought to have the destroyers. I think we only have one and a fraction for each battle ship. For instance, England has 52 battle ships, 142 destroyers, and 47 torpedo boats; France has 19 battle ships, 35 destroyers, and 257 torpedo boats; Germany has 22 battle ships, 60 destroyers, and 48 torpedo boats; Japan has 11 battle ships, 54 destroyers, and 77 torpedo boats. We have 22 battle ships, and only 16 destroyers and 32 torpedo boats.

Mr. DAWSON. Is any portion of this programme below the battle ships predicated upon the recommendation of the General Board?

Secretary METCALF. It is predicated only on what we consider the necessities of the service.

Mr. LOUDENSLAGER. Did the General Board or the Board of Construction take up the question of whether we ought to have an increased size of battle ship and a larger tonnage?

Secretary METCALF. I suppose they considered all those questions and after having considered them they recommended that we build four ships of the *Delaware* class.

Mr. LOUDENSLAGER. They are supposed to be about the same power as the *Dreadnought*.

Secretary METCALF. They have a greater power, because they have a broadside battery of ten 12-inch guns, as against eight.

Mr. LOUDENSLAGER. Have they as great efficiency as the battle ships now being laid down by the British Government?

Secretary METCALF. I think so. We have a greater broadside. We have ten 12-inch guns as against eight.

Mr. LOUDENSLAGER. I have been informed that for the three last battle ships authorized by the British Government there is an increase of about 3,000 tons displacement over that obtained by the *Dreadnought*.

Secretary METCALF. I referred to that in my report.

The programme for 1907 includes 3 large armored vessels of the *Dreadnought* type, 1 fast unarmored cruiser (3,300 tons), 5 ocean going destroyers (800 tons), 12 first-class torpedo boats (250 tons), and 12 submarines.

The new vessels of the *Dreadnought* type, Nos. 5, 6, and 7, of which one has been named *St. Vincent*, are to be known as the "*St. Vincent*" class. Their armament is stated to be similar to that of the *Dreadnought*, but the displacement has been increased to 19,300 tons.

Mr. BATES. Under present conditions do we need any more than two colliers?

Secretary METCALF. I have recommended four colliers.

Mr. BATES. We are short of colliers at the present time?

Secretary METCALF. Yes, sir.

Mr. LOUDENSLAGER. I do not know whether you have been asked by anybody about torpedoes?

Secretary METCALF. No, sir.

Mr. LOUDENSLAGER. Has there not been some evolution in the last few weeks in regard to the efficiency of torpedoes? Have you had a report on that?

Secretary METCALF. Not within the past few weeks.

Mr. LOUDENSLAGER. Something about a projectile that was invented by Lieutenant-Commander Davis at Newport?

Secretary METCALF. I simply saw a statement in the newspapers, but no report has been made to me.

Mr. LOUDENSLAGER. Is there any officer in the Navy Department who could give us any information about the tests that were made and under what conditions?

Secretary METCALF. Yes; Admiral Mason.

The Bureau of Ordnance wants the naval appropriation act amended so as to enable them to purchase some of the material abroad when it shall become necessary, exactly the same right that the Army has.

Mr. BUTLER. Have you made a contract for a Lake submarine boat?

Secretary METCALF. Yes, sir.

Mr. BUTLER. Have you not of the appropriation of last year \$330,000 remaining unexpended?

Secretary METCALF. Yes, sir; about that amount.

Mr. BUTLER. Why do you not build submarines of the *Octopus* type?

Secretary METCALF. I have made a contract for seven boats of that type.

Mr. LILLEY. We have had some testimony before the committee indicating that a battle ship of but 22,500 tons can be built for about ten per cent additional, and if it is a fact that a 22,500-ton vessel to carry twelve 12-inch guns can be built for ten per cent more, would that not be a better battle ship for us to build?

Secretary METCALF. It would be simply a civilian's opinion on my part. I would rather leave it to the experts of the Department. They have recommended ships of the *Delaware* class, and I should be inclined to accept their recommendation.

Mr. MUDD. Have you any recommendation to make as to submarines beyond what is in your report?

Secretary METCALF. No, sir. I simply recommend four submarines of the same type as those recommended as the result of the recent competitive tests, provided a more satisfactory type is not developed in the meantime.

Mr. MUDD. You mean more submarines of the same type now contracted for?

Secretary METCALF. Yes, sir.

Mr. MUDD. That means the Holland submarine boat?

Secretary METCALF. Yes, sir; unless a better boat is developed.

Mr. LILLEY. You do not want them exactly the same size?

Secretary METCALF. No, sir.

Mr. BATES. Do you think they should be the same length? I understand Captain Marix has stated that they can build a boat two hundred feet long.

Secretary METCALF. The Lake people have signed an agreement with the Department to build a boat 161 feet in length. No money is to be paid. They are to build the boat at their own risk, and it is to be subjected to such tests as the Department may determine, and the contract calls for just exactly the tests that will have to be made. If after the boat has been tested it is found to be equal to the best boat owned by or under contract to the Government, we are to pay \$450,000; if not, we do not pay one cent.

Mr. MUDD. What progress has been made further than awarding the contract?

Secretary METCALF. The agreement was only executed two or three days ago.

Mr. MUDD. You made a contract along in the middle of the summer?

Secretary METCALF. We awarded a contract to the Electric Boat Company for 7 submarines.

Mr. MUDD. Has any building been done under that contract?

Secretary METCALF. The boats are being built by the Fore River Ship Building Company.

Mr. HOBSON. Do you regard personnel legislation at this session of Congress as important?

Secretary METCALF. I have not had an opportunity to give that matter very much consideration.

[No. 14.]

PEARL HARBOR DRY DOCK.

COMMITTEE ON NAVAL AFFAIRS.

Tuesday, January 29, 1908.

The committee this day met, Hon. George E. Foss in the chair.

The CHAIRMAN. Gentlemen, we have with us the Delegate from Hawaii, Mr. Kalaniana'ole; Mr. Hatch, one of the prominent citizens of Honolulu, and Mr. McClellan, another prominent citizen.

STATEMENT OF HON. JONAH KALANIANA'OLE, DELEGATE FROM HAWAII.

MR. KALANIANA'OLE. Mr. Chairman, I shall not occupy the time of the committee with any arguments of my own in regard to the importance of a naval base at Pearl Harbor in the Hawaiian Islands. Instead I shall simply cite some historical facts to show how conclusively and for how long a time the strategic value of Pearl Harbor and the Hawaiian Islands has been officially recognized by the Government of the United States.

Beginning in 1842, President Tyler gave notice to European nations that the United States would never consent to their occupying the Hawaiian Islands.

In 1851, when the French were threatening to occupy Hawaii, Daniel Webster, then Secretary of State, wrote: "I hope the French will not take possession of Hawaii; but if they do, they will be dislodged, if my advice is taken, if the whole power of the Government is required to do it."

William L. Marcy, when Secretary of State, reiterated the declaration that Hawaii would not be permitted to fall into the hands of any European nation. Up to that time there was no menace of Hawaiian occupation by any nation other than European.

Almost a third of a century ago, when King Kalakaua was the reigning monarch of the Hawaiian Kingdom, the United States, by reciprocity treaty, obtained rights over the waters of Pearl Harbor. This was the first step toward carrying out the policy announced by President Tyler thirty-five years previously.

Coming down to the days of Blaine and McKinley, we find those statesmen repeating the declarations of their predecessors.

By the time that President McKinley reached the White House, it had become apparent that the danger of the occupation of Hawaii by a foreign power had been shifted from European nations to those of the Orient.

Finally, ten years ago, when the unexpected events of the Spanish-American war thrust a new situation upon this nation, it became

apparent that it was necessary for the United States to acquire the sovereignty of the Hawaiian Islands, both for the protection of the Pacific coast and in order to make it possible to maintain any naval base in the Far East.

But although this Government annexed the Hawaiian Islands for the particular value of their strategic location, they have permitted almost ten years to pass without turning a sod or laying one foundation stone toward the actual construction of a naval station at Pearl Harbor.

It is true that a magnificent site of over 600 acres of ground has been acquired for this purpose.

The 10 square miles of landlocked waters in Pearl Harbor could easily accommodate the combined fleets of this nation and of Great Britain, but that can never give shelter to a battle ship till docks are built and the channel approach is straightened.

The importance of Pearl Harbor as a naval and military base has been repeatedly urged by men able and experienced in military and naval science; among them Captain (now Admiral) A. T. Mahan, who pointed out with unanswerable arguments the commanding importance of Pearl Harbor as the key to the Pacific.

Gentlemen of the committee, this Government has for ten years neglected the safeguard of preparing a naval base in the mid-Pacific. Our relations with other nations are such to-day that it would be inexcusable neglect of the responsibility of Congress to the nation to postpone the beginning of this work another year.

The Navy Department and the General Board are at last keenly awake to the urgent need of opening Pearl Harbor and building a dry dock there at once. Both these lines of work should be carried on together, and both should be provided for in this bill.

I would respectfully suggest that your committee invite Admiral Dewey or some member of the Naval Board to appear before you and state to you personally in an executive session some of their reasons for the urgency of work at Pearl Harbor, which they may not care to transmit to you in writing.

The development of Pearl Harbor is not a Hawaiian proposition; it is a national need. But as my nation gave over its sovereignty to this country ten years ago, we have a right to ask, and we do ask that adequate protection be provided for our islands, so that we could not be captured by a single hostile battle ship as could be done to-day.

Coast fortifications alone are not sufficient; there must be an operating base for war vessels as well as coast defenses, and the latter are useless without the former.

Hawaii should be defended for its own protection; but I repeat that it is far more important for the offensive and defensive plans of the nation as a whole.

Mr. HOBSON. I would like to remark, in connection with the suggestion made by the Prince, that I ventured in advance to see Admiral Dewey and others that have studied that question, including General Bell. The Admiral recommends Captain Pillsbury as the man to represent the General Board; and General Bell himself said he would hold himself in readiness to appear before you if you desired his presence on that question. He said he could be reached over the telephone to-day if you wanted him.

**STATEMENT OF GEORGE B. McCLELLAN, ESQ., OF HONOLULU
TERRITORY OF HAWAII.**

Mr. McCLELLAN. Mr. Chairman and gentlemen of the committee, the Delegate has really outlined the substantial points in this proposition. We would like to say that while through your courtesy we are here to speak for Hawaii this morning in this connection; we realize thoroughly well that this development of Pearl Harbor is never going to be carried out as a matter of accommodation for or mere protection to Hawaii. We do not expect to have any work done there on that basis. We realize that you gentlemen are here to legislate for the country at large, and not simply for the Hawaiian Islands; and so when our statements are made in regard to this matter we would like to have it understood that we are simply speaking as local men in Hawaii, because we are perhaps more familiar with some of the details there than anyone else; but we are not talking about it as a Hawaiian proposition.

There is, as it seems to us, imperative need of a naval station in Hawaii, but that need is not for Hawaii. The requirement is a national necessity. The Delegate has already suggested to you how long this general proposition has been recognized by the nation. Have these men been right who have taken these positions for all these years? It is now more than half a century—sixty-five years—since President Tyler, as Governor Frear has well pointed out, practically laid down a Monroe doctrine of the Hawaiian Islands, viz: That no nation should ever be permitted to gain a hold on Hawaiian soil and displace the Hawaiian sovereignty except the American nation. The thing finally came down to an issue practically ten years ago; and when these responsibilities were thrust upon this nation it was seen that we had to have Hawaii.

If I may invite your attention to the little sketch map over there on the wall, you will see a map which has been drawn on Mercator's projection (the standard flat map of the world), showing the actual distances from the Hawaiian Islands to the surrounding points. If you were close enough to read the figures of distances, you would discover that Hawaii is the center of a circumference which is approximately from 2,100 to 2,400 miles, that touches Alaska on the north, the Caroline Islands on the southwest, the Samoan Islands at the other angle, southwest, Tahiti on the southeast, San Francisco, Victoria, and Seattle on the northeast, and Unalaska on the north; and therefore it dominates the Pacific Ocean.

Mr. HOBSON. It almost reaches Guam, does it not?

Mr. McCLELLAN. I do not recall, at this moment, the distance to Guam. I think the distance to Guam is a trifle greater, Captain Hobson.

Mr. HOBSON. It is about 3,000 miles to Guam—a little over.

Mr. McCLELLAN. Yes. That was my impression—that it was about 3,000 miles to Guam.

Now, gentlemen, if there had never been any Hawaiian Islands, when it came to any military operations between an oriental nation and the United States, both would have been on the same basis. It would have been simply a question of a five or six thousand mile trip across, and operating at that distance. If there had been many groups of islands there, then the possession of any one of them would

have been relatively unimportant. But as there is practically the one single group of islands in the middle of the Pacific Ocean commanding that situation, you see that the possession of those islands—and when I say “possession” I mean the effective possession of those islands—means that no hostile fleet from the Orient will dare go past that strong base to attack our Pacific coast. In the first place, they have approximately 5,000 miles to steam; and it would be impracticable for an enemy to steam 5,000 miles and have to take the risks of coaling and carrying on warlike operations at that distance.

Therefore the proposition comes down to a very simple one in the Pacific Ocean. If the Hawaiian Islands are controlled—and when I say “controlled,” I mean effectually occupied—by the American Navy as an operating base, they can defensively set out the line of attack 2,000 miles from the coast. Some of the California members have often spoken of that point to me, that Hawaii practically forms a buffer of defense against any enemy on the Pacific. There is your outpost, 2,000 miles out there, past which the enemy dare not go. Operating from Hawaii—which is, of course, connected by cable with this country—scouting cruisers, even with the present efficiency of wireless telegraphy, could be in constant communication with Honolulu, and through that with the mainland, for the direction of operations, for many hundred miles. Your army transports to-day, gentlemen, operating past there to the Philippines, have communicated for 800 miles, in the present efficiency of wireless telegraphy. So you see that it would only require a few vessels to keep touch between them and maintain communication back and forth.

If you are undertaking offensive operations, you can have your coaling base, your coaling supplies, at Pearl Harbor for your entire fleet. I invite your attention now to this larger map on this side of the room. Here is an enlarged map, taken from the Government chart of Pearl Harbor, showing the expanse of water, which, as the Delegate has already said, contains 10 square miles of water. Within this area here [indicating] is the 600-acre reservation already acquired for a naval station at Pearl Harbor.

The CHAIRMAN. Right there, on that point, do we own that reservation?

Mr. McCLELLAN. You own it in fee-simple, after having had a very long lawsuit, lasting three years, I believe, to acquire the title.

Mr. BATES. We own it through the War Department.

The CHAIRMAN. What is it being used for now?

Mr. McCLELLAN. It is being used to grow lantana and sugar.

The CHAIRMAN. Are we getting any rent for it at the present time?

Mr. McCLELLAN. None; and you will have none.

Mr. BUTLER. What kind of ground is it?

Mr. McCLELLAN. It is adobe soil, Mr. Butler. I will say, in regard to that question, that a stipulation was made that the company then holding it, who were very loth to give it up (because land is very scarce in the Hawaiian Islands), should be permitted to continue the growing of sugar until such time as the actual needs of the Government should displace them. And that is the status at present.

Mr. BATES. They have merely a squatter's right?

Mr. McCLELLAN. Yes.

MR. ROBERTS. Have not they a lease?

MR. McCLELLAN. They have no lease except tenancy at sufferance.

MR. ROBERTS. Is that the exact situation—that they have no lease whatever? Have they not been asking for a renewal of a lease?

MR. McCLELLAN. They can have none, as I understand, Mr. Roberts, under the deed. They simply have this stipulation under the deed itself.

MR. ROBERTS. I am advised that they have a lease which will expire during the current year, and that they want a renewal of it.

MR. McCLELLAN. I never understood so, and I would not suppose that the Government would give them a lease. It would seem to be a very unwise proposition.

MR. BUTLER. What is the width of that piece of ground, please? [Indicating.]

MR. McCLELLAN. This land reaches up there approximately 2 miles.

MR. BUTLER. Put your cane on the ocean, please.

MR. McCLELLAN. The ocean is here [indicating]; this is deep water.

MR. BUTLER. How many miles from the proposed station?

MR. McCLELLAN. Three miles.

MR. GREGG. Will all this have to be dredged?

MR. McCLELLAN. No, sir. That [indicating] is deep water, some of it running as deep as 150 feet.

MR. BUTLER. What natural protection is there for ships lying at anchor on the inside there?

MR. McCLELLAN. The natural protection, Mr. Butler, is this: In the first place, you have 3 miles here to deep water. That is only the protection of distance. There are no mountains here, but the land is sufficiently elevated to conceal ships and protect against direct fire from naval vessels.

MR. BUTLER. No mountains at all? Can you see the ships lying at anchor from the ocean?

MR. McCLELLAN. No; you can not.

MR. BATES. Not from the west shore. Is not this mountainous in here? [Indicating.]

MR. McCLELLAN. This is covered by timber and somewhat elevated. The mountains are over there [indicating], away farther back.

MR. BUTLER. Is it possible, however, to get a range from the ocean from an invading fleet?

MR. McCLELLAN. If you will allow me to open this small map here. Take this small map of the south side of Oahu: Here is the south side of Oahu, Pearl Harbor being here, and Honolulu here [indicating]. This, gentlemen, is approximately 6 miles, from the mouth of this channel to the mouth of this one. You have Government fortifications here.

In the first place, this red land is land already acquired by the Army for fortification sites.

MR. GREGG. Have they anything there?

MR. McCLELLAN. They are preparing to mount guns. They are preparing this year to put their emplacements there.

Returning to that map, these fortification sites are here, at the mouth of Pearl Harbor. Back here is a mortar station, on the hill. There is to be a heavy-rifle station here at the mouth of the Honolulu

channel, another one here at Waikiki, and another one back of Diamond Head. The range of those guns, of course, would prevent the approach of a vessel anywhere near here [indicating]; but the range from deep water up to the station is approximately 3 miles.

Mr. BUTLER. How would you protect the navy-yard there from an invasion by land?

Mr. McCLELLAN. You would protect it by soldiers.

Mr. BUTLER. We would have to keep a large army there, would we not?

Mr. McCLELLAN. I think there is a better way than that, Mr. Butler. I want to say, gentlemen, since this question has been raised, that it seems to me that the Navy Department ought to furnish submarine boats for the Hawaiian Islands and torpedo boats for the coast defense. I do not believe there is any place where there is a more proper natural location for that sort of boats to prevent landings of troops and arms by an enemy.

Mr. THOMAS. A defense of Hawaii must of necessity be a naval defense, must it not?

Mr. McCLELLAN. It must be a naval defense. And I think, gentlemen, that while you are waiting for the development of your dry dock, which will take three or four years, there ought to be provision made for submarines and torpedo boats for the coast defense of Hawaii.

What is the situation to-day, gentleman? An oriental nation, or any other nation, for that matter—particularly an oriental nation—could come there to-day with one battle ship, and in one-half day could take possession of the Hawaiian Islands by landing troops and arms. I am not going into the question of whether they are going to do it. I am simply stating, gentlemen, the fact that they could do it if they chose.

Mr. DAWSON. We are practically defenseless?

Mr. McCLELLAN. There is not a gun mounted in the Hawaiian Islands—not one.

The CHAIRMAN. Now tell us about the channel there. What about the depth of water going up?

Mr. McCLELLAN. If you will let me refer to this larger map—

Mr. BATES. That is the most wonderful thing in the whole group of Islands—that channel, 60 to 80 feet deep.

Mr. HOBSON. It is a wonderful thing; one of the marvels of nature.

Mr. McCLELLAN. You will recall this, Mr. Chairman, from your trip in the harbor—that when you come in here—I think, however, that we went down on the train, did we not, and then came back by boat?

The CHAIRMAN. No; I went right down through the channel.

Mr. McCLELLAN. You recall, of course, that it is a tortuous channel?

The CHAIRMAN. Yes.

Mr. McCLELLAN. Of course under the physical features of Pearl Harbor, gentlemen, you have an absolutely land-locked harbor, the channel of which is susceptible of being mined so as to entirely prevent any enemy from ever entering the harbor. That part is perfectly simple. But of course you want defenses to keep the enemy's vessels away. You have already dredged this channel bar. I would like to say that there is no question whatever of depth of the channel; it runs as deep as 120 feet.

Mr. BATES. What is the average depth there—60 to 80 feet, is it not?

Mr. McCLELLAN. I would say 60 feet, approximately.

Mr. BATES. That is what I have in my notebook.

Mr. MUDD. Do you not have to pass over a point where there is only about 30 feet?

Mr. McCLELLAN. That is what I was going to speak of. You dredged this channel where this straight line is. That is dredged now to 30 or 32 feet; and I believe that the engineers of the Navy Department feel that that channel may possibly need to be widened. It is a 200-foot channel.

Mr. BUTLER. How deep is it now? To what depth has it been dredged?

Mr. McCLELLAN. Thirty or thirty-two feet.

Mr. BATES. That is the depth he means.

Mr. BUTLER. And the only obstruction to the navigation of that channel is the depth?

Mr. McCLELLAN. The only one; and I would say——

Mr. BUTLER. How about the ability to keep it clean after it is dredged?

Mr. McCLELLAN. I was just going to speak of that. The channel is maintaining itself without any silting whatever, and the engineers have concluded from the observations so far that there will be no cost of maintenance.

Mr. BUTLER. And then when you get inside, what is the depth of water in front of the land that you propose to put the station on?

Mr. McCLELLAN. That runs about 40 feet or 35 feet.

Mr. ROBERTS. Is it a bold shore?

Mr. McCLELLAN. It goes off rather sheer; yes.

Mr. ROBERTS. You would not have to run long piers out in order to have ships lie there?

Mr. McCLELLAN. No; not at all.

The CHAIRMAN. There are some things that have got to be done to that channel. In the first place, there are those corners.

Mr. McCLELLAN. Yes.

The CHAIRMAN. I wish you would tell us about that.

Mr. McCLELLAN. When you are getting a vessel in here these turns are so angular that it is not practicable to-day to take a battle ship in there. It could be done theoretically; but I judge that the Navy Department would not take the risk of sending a battle ship into Pearl Harbor to-day.

Mr. ROBERTS. What is the width up there? [Indicating.]

Mr. McCLELLAN. Up here? [Indicating.]

Mr. ROBERTS. All the way down; how does it average?

Mr. McCLELLAN. The width across here—I can answer that best by a scale measurement. That channel runs here from 400 to 1,000 feet.

Mr. MUDD. Where is the danger?

Mr. McCLELLAN. Because of the sharp turns in such places as this [indicating].

Mr. ROBERTS. Well, you would have the width; the width is there.

The CHAIRMAN. What corners are there? There has been talk of filing them off.

Mr. McCLELLAN. This sketch has been drawn here, Mr. Chairman, on the assumption that a 2,000-foot radius should be provided for

these turns; and that would involve cutting to these lines here, cutting commencing out here and here [indicating].

Mr. BUTLER. What is the material that would have to be cut there?

Mr. McCLELLAN. That matter is being tested out now by the chamber of commerce at home. There were no funds available, and the Honolulu people were anxious to have something gotten under way in this line; so they are having borings made there. They have cabled on to Washington the results of the borings so far; they are now working on this point here, Bishops Point, and they have found soft material.

Mr. BUTLER. They have?

Mr. McCLELLAN. Yes, sir; either sand, shale, or decomposed coral. No live or solid coral has been encountered at all in the borings.

Mr. BUTLER. It is not hard? It will not be difficult, then, to excavate or blow it out?

Mr. McCLELLAN. All they have encountered so far could be done by suction work, I think, with the possible exception of some shooting once in a while.

The CHAIRMAN. Has any estimate been made of cutting through that bar and straightening that channel? Has any estimate ever been made of the expense of doing that?

Mr. McCLELLAN. An estimate has been made, Mr. Chairman, calling for a million and three-quarters cubic yards, but no estimate has been made as to the actual cost of that, because of the fact that these borings for testing the quality of the material have not been completed heretofore. They are being made at the present time. It will cost you a minimum, perhaps, of half a million dollars. It will probably cost you anywhere from half a million dollars to three-quarters of a million dollars to put all of that channel in shape.

Mr. BUTLER. To widen it?

Mr. McCLELLAN. To widen it and to cut off these points. That would include the widening.

Mr. HOBSON. And the time required for that would be very much shorter than the time required for building a dock?

Mr. McCLELLAN. Yes, sir; somewhat shorter.

Mr. GREGG. Is that channel wide enough—I mean, according to the requirements of the Navy?

Mr. McCLELLAN. The Navy think it ought to be widened to 300 feet.

Mr. THOMAS. Mr. McClellan, what is the intention here—simply to build a dry dock or to build a navy-yard?

Mr. McCLELLAN. I would say, simply so far as the estimates are concerned, that the Navy Department have estimated only for a dry dock.

Mr. THOMAS. I understood you were talking about a navy-yard.

Mr. McCLELLAN. The general proposition is to have an operating base, an emergency station—not a station where you will ever rebuild ships, for instance, because in the nature of the case you wont come over to Honolulu for that purpose.

Mr. THOMAS. Simply a place to overhaul them and repair them?

Mr. McCLELLAN. Yes, sir. This is an emergency operating base. You will have, of course, equipment there of the most modern type for the rapid coaling of a fleet.

Mr. BATES. How many vessels could be deployed up in there with safety, in your judgment?

Mr. McCLELLAN. Do you mean in that particular loch?

Mr. BATES. Up in Pearl Harbor.

Mr. McCLELLAN. Pearl Harbor lochs will accommodate the whole American and British navies, combined, without any crowding whatever, and without dredging.

Mr. BATES. At the present depth?

Mr. McCLELLAN. Yes.

Mr. HOBSON. You could put all the navies of the world in there?

Mr. BATES. You could put them all in there? That is what I wanted to bring out.

Mr. McCLELLAN. Yes; without any dredging at all. The dredging you will do is simply for your channel approach. And I want to call your attention to the remarkable natural formation here for the dry dock. This [indicating] has always been understood to be the probable site of the dry dock. There is a bight making in here between coral walls, composed of soft matter which can almost all be dredged out, I understand, with a location on either side for machine shops or whatever apparatus of that sort you may want to put in.

Mr. ROBERTS. What is the distance across from that little island?

Mr. McCLELLAN. Up here [indicating]?

Mr. ROBERTS. No; the other little island there, from there across.

Mr. McCLELLAN. From there [indicating]?

Mr. ROBERTS. Yes.

Mr. HOBSON. About 500 feet.

Mr. OLCOTT. More than that, if it is on the same scale as the other map.

Mr. McCLELLAN. About 1,000 feet, judging from the channel.

Mr. ROBERTS. And it is bold water all around that little island?

Mr. McCLELLAN. Yes, sir. There is some shoal water making right out from that little point there, Mr. Roberts; but at this island there is deep water making clear out to here [indicating].

Mr. ROBERTS. What I am getting at is this: There is plenty of room to point a ship straight into the dock there without having to dredge, is there?

Mr. McCLELLAN. Oh, there is no difficulty on that score. This island, it is supposed, will be used for ammunition.

Mr. BUTLER. Let me ask you—I never was there, but I would like to have it in my own mind—there is no protection whatever to the Hawaiian Islands? This Government has afforded no protection whatever in the way of defense to the islands?

Mr. McCLELLAN. It has only started in that direction by acquiring some sites for fortifications.

Mr. BUTLER. I know; but the sites will not defend anything?

Mr. McCLELLAN. Not very well; no.

Mr. BUTLER. No; they will not.

Mr. OLCOTT. Is the Army moving along with the fortifications now?

Mr. McCLELLAN. I was just going to say that the Army is in advance of the Navy. They have appropriated—I can not give you the exact figures at this moment, but they have some emplacements already finished. They have not mounted any guns yet, but they have some emplacements already finished.

Mr. BUTLER. Have appropriations been made for the guns?

Mr. McCLELLAN. Some appropriations have been made for the guns; and the Secretary of War, I understand, is urging this year very strongly that they provide for the entire plan of defense outlined by the Taft board report.

Mr. ROBERTS. About where are those emplacements in the Islands—at the entrance to Pearl Harbor?

Mr. McCLELLAN. Part at the entrance to Pearl Harbor; part at the entrance to the Honolulu channel; part of them here at Pearl Harbor; one mortar battery here at Salt Lake; one rifle battery here at Salt Lake; and a mortar battery here back of Diamond Head, so as to command particularly the area out in front.

Mr. ROBERTS. So as to command the approach to Pearl Harbor?

Mr. McCLELLAN. Entirely.

The CHAIRMAN. Do you know what the estimate of the cost of the fortifications is?

Mr. McCLELLAN. The submitted estimate for the emplacements is \$1,100,000.

The CHAIRMAN. Do you know what the total estimate for the fortifications on the part of the Army is?

Mr. McCLELLAN. Roughly, two millions and a half; and we have hopes that the Committee on Appropriations are going to provide for the complete project this year. The War Department are urging it very strongly. I wanted to call attention to that, gentlemen, because those fortifications, while they should be made, have their value greatly decreased unless you gentlemen do something for a naval base. If you do not at least give us some protection against the landing of an enemy, the enemy can come in and can take possession by landing at other places. Of course where you have an island of that sort, it would cost a tremendous sum of money to put a whole row of batteries and rifles clear around the island to prevent any landing. In other words, in order to make effective the national defense already provided by the military branch of the Government, it is absolutely necessary to make a beginning in this line, and the time has arrived when it should be made. Of course it will take a number of years to complete.

Mr. ROBERTS. Let me ask you whether it is possible to land troops anywhere around that island?

Mr. McCLELLAN. Not anywhere; but there are some places where it could be done.

Mr. OLCOTT. Do all vessels landing troops there have to pass the entrance to Pearl Harbor?

Mr. McCLELLAN. How is that?

Mr. OLCOTT. You speak of armies landing at other parts of the island. How far across the island is it? That is what I want to get at.

Mr. McCLELLAN. Oh, the short cut—there is a short way of 10 or 15 miles; but they could not come across there, as that pass could be easily defended. They could, however, come the longer way up in the other direction.

Mr. HOBSON. In the present condition, in your judgment, could the navies of some foreign power already in the islands seize what we have, unless we go further?

Mr. McCLELLAN. I would say, in answer to that, that if the allies of the aliens now in the islands were to come there, if one war vessel should come there convoying vessels with arms, and were to land

those arms, assuming that the aliens who are there would adopt a belligerent attitude, they could take possession and displace us, as I say, in one day.

The CHAIRMAN. Assuming that the United States would simply sit still and do nothing?

Mr. McCLELLAN. Yes; as the Government has done for the last ten years.

Mr. GREGG. Is there any place on the island where they could land men that would not be protected by these fortifications? I do not exactly understand that.

Mr. McCLELLAN. Yes; there are other places on the islands where troops could be landed.

Mr. GREGG. Are the harbors such that they could land?

Mr. McCLELLAN. Not harbors, but where they could be landed as our own troops, I take it, were landed in Cuba.

Mr. GREGG. The vessels could anchor out and send them in as we did?

Mr. McCLELLAN. Yes. We landed in Cuba in that way.

The CHAIRMAN. We have a naval station already in Hawaii, have we not?

Mr. McCLELLAN. At Honolulu.

The CHAIRMAN. How many miles away from the entrance to this harbor is it?

Mr. McCLELLAN. Six miles.

The CHAIRMAN. Tell us about that naval station, what it amounts to.

Mr. McCLELLAN. The naval station at Honolulu—the same thing is true of that; they could come in and take it. It is right there in our very much crowded harbor. They have a wharf there, and they have coal sheds; there is a frame building for the commandant's house; and that is the naval station.

The CHAIRMAN. Is there any repair shop there?

Mr. McCLELLAN. No, sir; you could not repair a whaleboat there.

The CHAIRMAN. How large is it—how many acres? I drove around through it, but I have forgotten how many acres.

Mr. McCLELLAN. I should think it was 30 or 40 acres.

Mr. MUDD. When and how did we get title to this land—from the act of annexation?

Mr. McCLELLAN. The land there you purchased, Mr. Mudd. That was paid for. That land was condemned and paid for.

Mr. MUDD. When was that done?

Mr. McCLELLAN. Some five or six years ago.

The CHAIRMAN. Do you remember how much the Government paid for it?

Mr. McCLELLAN. It cost approximately—

Mr. HATCH. About \$70,000.

Mr. McCLELLAN. My impression was that the cost was more than that. Now to return to the general proposition:

If Hawaii, in its present defenseless state, were captured by a foreign foe, the American people would expend \$500,000,000 if necessary, to retake the islands; and in the end it would probably cost that much to displace a foe when once intrenched there.

The practical question before the Congress is, would it not be more sensible and businesslike to spend a few millions in the way of insurance against such loss, rather than to run the risk of having to expend

an enormous sum to retake this essential key to the Pacific Ocean? Even that large sum could never wipe out the national humiliation of having an important strategic part of the national domain captured even temporarily by an enemy.

That the establishment of a naval base at Pearl Harbor is of vital importance to the entire Pacific coast is shown by the fact that the following commercial bodies have passed resolutions expressly urging Congress to begin work at Pearl Harbor this year: The California State Board of Trade; the Board of Trade of San Francisco, Cal.; the San Francisco Chamber of Commerce; the Chamber of Commerce of San Jose, Cal.; the Chamber of Commerce of Los Angeles, Cal.; the San Diego Chamber of Commerce; the Chamber of Commerce of Humboldt, Cal.; the Merchants and Manufacturers' Association of Los Angeles; the Chamber of Commerce of Portland, Oreg.; the Chamber of Commerce of Seattle, Wash.; the Tacoma Chamber of Commerce; and the Pacific Coast Lumber Manufacturing Association of Seattle.

The fact that California commercial bodies ask for the naval development of Pearl Harbor at the same time they are asking additional navy-yard facilities in California is strong evidence that the country regards Pearl Harbor as a necessary part of any adequate naval defense of the Pacific coast.

This is clearly set out in the following letter of the San Diego Chamber of Commerce sent to Members of Congress:

SAN DIEGO, CAL., *January 9, 1908.*

DEAR SIR: You are, of course, familiar with the tremendous development now going on in the Pacific. Our States bordering thereon are already classed as being among the nation's most valuable possessions, and yet they remain practically defenseless. It is true that we have fortifications at Puget Sound, at San Francisco, and San Diego, but they are entirely inadequate. Especially is this true of San Diego; 2,100 miles from shore lies our outpost—Hawaii—the strategic center of the Pacific. To-day her only defensible harbor, Pearl Harbor, near Honolulu, is unprotected, and in its present condition is useless for our Navy, and therefore useless for our defense.

The Army and Navy Departments own large acreages of land on Pearl Harbor, and we most earnestly urge that their plans for its improvement and defense be entered upon without delay.

While the growing commerce of the Pacific is sufficient in itself to warrant this undertaking, we would yet press it from a selfish standpoint—the need of adequate protection for the Pacific coast, which can not be permanently secured until Pearl Harbor is made available for our ships of war.

Respectfully submitted.

SAN DIEGO CHAMBER OF COMMERCE,
By PRESIDENT.

HON. JONAH K. KALANIANA'OLE,
Washington, D. C.

That the naval development of Pearl Harbor is desired by those interested in the commerce of the Pacific is shown not only by the action of the commercial bodies above named, but also by resolutions of a similar nature adopted within the past few months by the Chamber of Commerce of Wichita, Kans., the Commercial Club of Minneapolis, Minn., and two bodies of international commercial importance, viz, the Trans-Mississippi Convention and the Chamber of Commerce of New York City.

These all indicate a national recognition of the fact that under present exigencies, the greatest need of naval development is on the Pacific.

A naval base at Pearl Harbor is necessary for the successful maintenance of an operating base in the Philippines.

In any plan of naval operations on the Pacific, Pearl Harbor must be the key, as it is the center of the situation; it is located at the crossroads, and it should be made into the Gibraltar of the Pacific.

Now, if the committee will excuse me, I would like to have Judge Hatch speak on this subject.

STATEMENT OF F. M. HATCH, ESQ., OF HONOLULU, TERRITORY OF HAWAII.

Mr. HATCH. I have a little photograph here of a relief map of the islands, which I will pass around, and which will perhaps give you a better idea of the nature of the land than you could get from a plain map. It shows the mountain formation, and will answer Mr. Butler's question a little more definitely.

I think the military experts will tell you that that island is a wonderful natural fortress; that although it is possible to put men ashore at other places, except on this south side, yet the whole northeast coast of the island of Oahu is cut off from the rest of the land by a perpendicular mountain wall. Six miles back of Honolulu you come to a piece of wonderful natural scenery called the Pali, which is the Hawaiian word for "precipice;" and there is a clean drop of 800 feet, just as perpendicular as this wall. That whole shore is cut up by this mountain formation.

Mr. BATES. On the north?

Mr. HATCH. On the northeast. It strikes me, as a layman, that a very small force of men could hold that island, when you have some guns in place there, against all the troops that could be brought there; and it would not require 100,000 men to hold off 100,000 men; 1,000 men could do it, in my judgment, on account of the natural formation of the island.

Then there is this other very extraordinary feature: There is a great deal of coral reef about the island of Oahu—much more than there is about the big island of Hawaii. This coral reef extends all along, from Honolulu around Diamond Head clear down to Barbers Point. That little map will show it. All along that south and southwest shore the coral reef comes to the surface of the water, and its distance from the shore varies from a mile to half a mile. Now, no boat can land through that reef. A native fisherman can not go through the surf breaking on that reef. There is just one tiny opening in it close to Diamond Head where the cable was brought through. That is only about 50 feet wide. Then the next opening in that reef is at Honolulu Harbor. Then there is a narrow entrance at Kalihi Harbor, about 2 or 3 miles toward Pearl Harbor entrance. Then there is this entrance to Pearl Harbor. Then you go on clear to the extreme point of the island, and there is not a spot there where a landing could be made. Not a single man could get ashore; he would be dashed to pieces by the action of the ocean on the sharp coral reef. As you know, these islands are all mountain tops rising from great depths, anyway. The ocean is very deep around the Pacific islands. I think it is from 1 to 2 miles in depth. Some of the greatest depths in the Pacific are very near there—5,000, 10,000 feet, or even 2 or 3 miles. So the tremendous force of the breakers is caught on the coral reef.

Then along the northwest coast of the island there are only two spots where a boat could land—one at Waialua plantation, where

there is a very small schooner harbor, and an open roadstead where Captain Cook first landed. But a very few men could hold off an enemy from landing there. And so you can go on, right along around the island. You can ignore the northeast side altogether, because there are these three spots—this natural fortress, back of Honolulu, the Pali, which is a regular Thermopylæ, where two or three men could prevent any number from climbing up this steep mountain road, which goes right up the face of the cliff, and the two ends of the island. Those three points being guarded, all the rest of that coast could be left out of consideration.

Mr. BATES. Judge Hatch, may I ask you one question about the contour here? Is not the land on either side of the approach to Pearl Harbor so high that a fleet in Pearl Harbor would be invisible to ships on the outside, or out on the sea?

Mr. HATCH. There are no mountains here [indicating], but there is some rising land; and I have understood that the guns would have to be elevated so much that the shells would go over the site of the naval station.

Mr. BATES. Only mortar shells could reach Pearl Harbor, could they?

Mr. HATCH. That is the way I understand it.

Mr. BATES. Only mortar shells could be dropped in. They could not do any direct firing from the outside into Pearl Harbor?

Mr. HATCH. They would go over the site. An enemy out at sea would have to elevate his guns so much that he could not drop his shot here [indicating]. They would go over here [indicating] if elevated sufficiently to go over this intervening land.

Mr. BATES. That is the way I understand. As I understand, the land on the west is high or mountainous.

Mr. HATCH. As a matter of possible interest, I will say that the United States got its first title to Pearl Harbor back in 1884. I have here the supplement to the reciprocity treaty. The reciprocity treaty was made in 1875. Then, in 1884, it was renewed, and this article was added:

After article 1, insert the following as article 2:

"His Majesty the King of the Hawaiian Islands grants to the Government of the United States the exclusive right to enter the harbor of Pearl River in the island of Oahu, and to establish and maintain there a coaling and repair station for the use of vessels of the United States; and to that end the United States may improve the entrance to said harbor, and do all things needful to the purposes aforesaid."

So the country has really had the absolute title to that body of water since 1884.

As Mr. McClellan said, we in Honolulu are intensely interested in this whole proposition—not as a local proposition, of course, but as citizens of the country. And as you look at that circular map there, it illustrates the defensive value of this location. If you start a line from Unalaska and the Aleutian Islands, come down to Hawaii, and then back to Panama, you will notice that all that stretch of ocean is practically an American lake, if Hawaii is held.

The CHAIRMAN. Gentlemen, are there any questions? If not, we have here Representative Smith, of California, who is much interested in San Diego Harbor, and would like to see established there, I think, a dry dock and naval station. We shall be very glad to hear from Congressman Smith.

[No. 15.]

**STATEMENT OF HON. SYLVESTER C. SMITH, REPRESENTATIVE
FROM CALIFORNIA.**

Mr. SMITH. I did not know until a very few moments ago that you were having hearings on this subject, so I have not brought with me any maps or data of any specific character. Therefore I do not know whether it is advisable for me to consume the time of the committee this morning or not. That depends somewhat upon what your pleasure is. I shall be glad at any time to lay before the committee maps and data with respect to the situation there, in order that they may understand something of the topographical and marine features of that locality.

The CHAIRMAN. I wish, Mr. SMITH, that you would state briefly and in general terms the situation there at San Diego, and then you can elaborate the matter in the report of the hearing.

Mr. SMITH. Very well.

As perhaps all of you know, I have introduced a bill to bring this subject to your attention, calling for the appointment of a commission of engineers to select a place on San Diego Bay for a dry dock, and carrying an appropriation to begin the work. We have noticed, during the last year or two, considerable comment in the eastern daily press as well as in magazines about the necessity for further naval equipment on the coast, and feeling that perhaps it was our duty to be as active as anyone in bringing the matter forward, and not being unappreciative of the local advantage, I introduced the bill at this session.

There is at San Diego one of the great inland bays of the nation, where there is great depth of water, and plenty of room inside. The Navy Department owns a considerable amount of land fronting on very deep water on the bay, where you are now constructing a coaling station. There are some batteries planted there, the extent of which I am not able to state off-hand, but will furnish the information to the committee. There is some protection already provided.

One of the matters that I suppose will interest you is as to the entrance to the harbor. At the present time the depth of water over the slight bar that lies in the throat of the harbor is but 26 feet at mean low tide, and there is a tide of 6 feet and a fraction at that point. The river and harbor bill passed at the last Congress authorized a reexamination of the mouth of the harbor, and the report, which I suppose will reach Congress to-day (it was to pass the river and harbor board yesterday, and is their final action, but I know in advance that it is favorable) says that for \$125,000 the mouth of the river can be made 30 feet deep and 600 feet wide, and it is as straight as an arrow. There will be no trouble in navigating it. But in order to be entirely

sure on that point, the War Department, at the suggestion of Senator Flint and myself, referred the report to the Navy Department, in order that the Bureau of Navigation might express an opinion as to whether that was sufficient for the needs of the Navy, assuming that there might be occasion for the larger vessels to go in and out. And I am told in advance that the report of the Navy is that that kind of an entrance, under all the circumstances, would be satisfactory.

The CHAIRMAN. How far up is the coaling plant from the mouth of the harbor?

Mr. SMITH. I am not very good at judging distances along the water line, but I judge that from what we call the mouth of the harbor—you know there is a breakwater that runs out there——

The CHAIRMAN. Yes.

Mr. SMITH. From the beginning of that breakwater, I suppose it must be 2 or 3 miles into the coaling station, which is on the ground allotted to the Navy; and between that point and the mouth of the harbor rest these batteries.

The CHAIRMAN. How much land has the Navy there—how many acres; do you recall?

Mr. SMITH. I can not recall.

The CHAIRMAN. Put that in the report of your hearing, if you please.

Mr. SMITH. I will. There is a large amount of land, a strip several hundred yards in width (I can not state the amount exactly) running right back and up a gentle slope toward the higher hill. Point Loma, as you may remember, runs down like a tongue toward the ocean. That is on the north side of the entrance. The land from the water's edge slopes gradually for half a mile, and then it rises more abruptly to this slight promontory [indicating], so that it would be an ideal place for an aggregation of men to work. It is a very healthful place, with good drainage; and the climate of San Diego is as equable as that of any place in the United States, I presume.

The CHAIRMAN. How far is San Diego from San Francisco?

Mr. SMITH. It is about 700 or 800 miles, as I estimate it. Judging by what I know of the railroad; it must be between 700 and 800 miles from San Francisco.

The CHAIRMAN. Is there any large harbor south of San Diego?

Mr. SMITH. Not in the United States.

The CHAIRMAN. Any large harbor that compares at all with the harbor of San Diego?

Mr. SMITH. I am not familiar with the measurements of Magdalena Bay. I confess that I do not know much about that. But there is nothing else in the United States. San Diego Bay lies almost at the international line. When you are inside the bay it runs down into the peninsula. There is probably one other point between San Diego and San Francisco which in depth of water, etc., would be suitable for such a purpose. It is two-thirds of the way from San Diego toward San Francisco. That is Port San Luis, where a breakwater is being constructed also. There would be some objections to the location of a dry dock there, if it were otherwise available, on account of the configuration of the land and the ownership of the land.

The CHAIRMAN. I see.

Mr. SMITH. The generally expressed opinion in the eastern press has been that there ought to be additional navy-yard equipment in the

way of shops and docks, etc., on the Pacific coast, and that it ought to be as near the Isthmus of Panama as possible, and that is what brings San Diego prominently into this matter. You have a yard at Mare Island and also at Bremerton on Puget Sound—the only points on the coast where you can handle your vessels.

Mr. ROBERTS. Mr. Chairman, may I ask Mr. Smith what depth of water they have now in San Diego harbor?

Mr. SMITH. Do you mean over the bar?

Mr. ROBERTS. Yes.

Mr. SMITH. Twenty-six feet. It was made 28 feet by the Government a few years ago, and it has shoaled a little.

Mr. ROBERTS. Has that jetty been completed on the south?

Mr. SMITH. The breakwater?

Mr. ROBERTS. The breakwater or jetty.

Mr. SMITH. Yes, sir.

Mr. ROBERTS. That was built, I take it, to keep that channel clear, was it not? So it is really a jetty?

Mr. SMITH. For that purpose; yes.

Mr. ROBERTS. And in that channel, after you get inside, there is a very sharp turn, I believe. Has that been fixed at all?

Mr. SMITH. The appropriation I speak of, \$125,000, contemplated the removal of what is called the Middle Ground, that sand "kidney" that lies inside of the harbor, so that there will not be that sharp turn any more.

Mr. ROBERTS. And you have money enough to remove that?

Mr. SMITH. One hundred and twenty-five thousand dollars is expected to remove that completely, so that you can come straight in.

Mr. ROBERTS. How many acres of ground has the Navy Department now where the coaling station is being built?

Mr. SMITH. I am not able to state that. I am going to supply that information accurately afterwards. They have a large amount there.

Mr. ROBERTS. Do you know, in a general way, whether there is land enough there for a navy-yard?

Mr. SMITH. I should say, off-hand, that there are 100 acres.

The CHAIRMAN. You can elaborate the report of the hearing for the benefit of the committee.

Mr. SMITH. I shall be glad to present more accurate data on these things. I did not come this morning prepared to go into the matter in detail.

The CHAIRMAN. Thank you very much for coming before the committee.

(The committee thereupon adjourned.)

Continuing the statement made before the committee a few days ago, I beg to submit herewith a map of San Diego Bay and adjacent lands. This, from the coast and Geodetic Survey, shows the depth of water and area of the bay; also the land on the shore of the bay heretofore assigned to the Navy Department. This body of land has a frontage of 2,900 feet on the bay at a point where the water is from 8 to 11 fathoms deep. It extends across the peninsula to the ocean on the west. The rest of the peninsula known as Point Loma belongs to the Government, and any part of it could be had for the uses of the Navy Department without expense.

There is also submitted herewith a map of the United States, which shows the present location of our yards and docks. Your attention is respectfully invited to the very meager equipment in this respect on the Pacific coast. I need not say to you that all who venture an opinion on the subject agree that there is much greater likelihood of naval activities on the Pacific than on the Atlantic or Gulf coast in the near future, and it seems to me important that we begin now to prepare ourselves to take care of our fleet on the Pacific if it should be called into action out there. Docks can not be built and yards equipped in a day under the most urgent circumstances. Is it not wise, therefore, for us to begin now the work of installing such plants as would surely be needed on the Pacific coast if our splendid Navy should be called into action?

Respectfully submitted.

[No. 16.]

**HEARING BEFORE THE COMMITTEE ON NAVAL AFFAIRS, HOUSE
OF REPRESENTATIVES, CONCERNING APPROPRIATION FOR
BUILDING OF SUBMARINES ON THE PACIFIC COAST.**

COMMITTEE ON NAVAL AFFAIRS.

**House of Representatives,
February 4, 1908.**

The committee met at 11 o'clock a. m., Hon. George E. Foss in the chair.

The CHAIRMAN. The committee will please come to order. What gentleman from the Pacific coast shall we hear first? Will you address the committee, Mr. Kahn?

**STATEMENT OF HON. JULIUS KAHN, MEMBER OF CONGRESS
FROM CALIFORNIA.**

Mr. KAHN. Mr. Chairman and gentlemen, I have received, and the members of the California delegation have received, within the past few weeks many petitions from organizations representing the business interests of the West, requesting us to do what we could toward the securing of an appropriation for the building or the construction of submarines on the Pacific coast, for the defense of the ports and the bays out there. I speak more particularly for the State of California. Mr. Humphrey and Mr. Jones will speak for the Puget Sound territory.

While the harbor of San Francisco is protected against battle ships, there are many indentations and bays within an area of a hundred miles north and south of that bay that are absolutely undefended. From conversations that I have had with officers of the War Department I find that it would be a very easy matter for a foreign fleet to escort transports to one of those bays, where a force of sufficient magnitude could be landed to march north or south to San Francisco on the land side and take it within three or four days after a landing had been effected.

Now, gentlemen may smile at the improbability of such a thing, but as a matter of fact wars break out very suddenly. A country that contemplates hostilities does not usually give its adversary a year's notice to prepare for the conflict.

The history of the beginning of the Japanese-Russian war is very remarkable. The Japanese prepared for that war for a long time prior to the time of actual hostilities; and when they appeared with their fleet, or a portion of it, before Chemulpo, their vessels carried sections of trestles aggregating 600 feet in length so as to provide

for the rise and fall of the tide there, which is 30 feet. When these sections were put together across the mud flats it enabled them to land their troops right from their transports over the trestles on to the dry land. They had carried these trestles from Japan to effect that landing at Chemulpo; and the world knows how effective the troops were and how quickly they marched on to Seoul.

The entire Pacific coast from the Bay of San Diego right up to the Puget Sound gives splendid opportunity for a foreign foe to effect a landing. There is nothing to prevent an enemy, after they have once landed, from laying the large cities of that coast under contribution.

We feel that the expenditure of a reasonable amount of money at the present time for the construction of submarines, will save this Government eventually many millions of dollars. We feel that it is the cheapest kind of an investment; we feel that it will result in the proper protection of some of those bays and harbors that would afford a foreign foe a splendid landing. These submarines could be run down into these bays and harbors and would be effective against the war vessels of an enemy. We ask for this appropriation—

Mr. LILLEY. How do you know they would be effective? Did you ever go down in a submarine?

Mr. KAHN. No; I have never been down in a submarine.

Mr. LILLEY. How do you know they would be effective?

Mr. KAHN. I have read the reports of the French naval officers—

Mr. LILLEY. Did you ever know of a submarine doing any damage to anything but itself?

Mr. KAHN. So far as that is concerned, I know of war vessels that have been damaged—there have been collisions among the big war vessels, and other accidents, such as explosions of guns and of boilers.

Mr. LILLEY. That was not my question. Did you ever know of a submarine to do any damage except to itself? Of course you have known of battle ships doing damage to other battle ships.

Mr. KAHN. I have known of a number of battle ships that did damage to themselves. But as far as these submarines are concerned I do not know that any one of them ever did any damage to itself except possibly to sink.

Mr. LILLEY. What makes you think they make good offensive and defense weapons of warfare?

Mr. KAHN. Because the men who are connected with that branch of warfare have testified in different countries that they are. I have read the report of a French admiral—whose name I have forgotten—who went into the subject very fully, and who advised his Government to go extensively into the building of these submarines.

Mr. LILLEY. Why is it that 97 out of every 100 of our naval officers are not in favor of any considerable appropriation for submarines?

Mr. KAHN. I can not answer that; I do not know.

Mr. HUMPHREY. Is that question true?

Mr. LILLEY. It is, so far as my information is concerned.

The CHAIRMAN. It is not necessary for us to go into a discussion of that phase of the question.

Mr. KAHN. This has been my experience, Mr. Chairman: That if 97 per cent of the naval officers of this country were opposed to submarines I doubt whether this Government would ever build a single one of them; and the fact that they have built a number is pretty

good evidence that some of the naval officers, at least, are in favor of them.

Mr. LILLEY. Can I answer that, Mr. Chairman?

The CHAIRMAN. We want to hear Mr. Humphrey and also Mr. Jones, and I think it would be better to hear these gentlemen, and get through with the hearing. Then we have some other matters to take up.

Mr. HOBSON. I would like to say this, Mr. Chairman, not for the purpose of a discussion, but simply that it may be put into the record in connection with the Seoul matter: It appeared yesterday that some were in doubt as to whether it was important for us to make preparations at this juncture with a view to possible emergencies. In that connection, may I ask Mr. Kahn this question: Is it not a fact that on the very day or night that the Japanese ships entered the harbor of Chemulpo, the Russian minister at Seoul scoffed at the thought or possibility of war with Japan within three years?

Mr. KAHN. Not only is that the fact, but he was that very evening the guest of the American minister at a dinner that was held in Seoul. Not only did that occur at Chemulpo, but at Port Arthur, all of the commanding officers of the Russian battle ships were at the house of one of the commanding officers or of the governor-general, celebrating at a birthday party the natal day of the wife or daughter of this officer. They did not think it was at all possible that they would have trouble.

Mr. HOBSON. When Alexieff was in supreme command, did he not believe—did he not think—he had two or three years in which to get ready for such a war?

Mr. KAHN. They had no idea Japan was going to strike them within a year or two, at any rate.

[No. 17.]

The CHAIRMAN. We will now hear from Mr. Humphrey.

**STATEMENT OF HON. WILLIAM H. HUMPHREY, MEMBER OF
CONGRESS FROM WASHINGTON.**

Mr. HUMPHREY. In commencing my remarks I want to say that I am not one who believes we are going to have immediate war with Japan; but it is my opinion than any man who thinks that we are protected on the Pacific coast, or that there is no probability of war upon the Pacific, has studied recent events with very poor results. It is no use, gentlemen, for us to attempt to conceal the fact that the next contest that we are going to have, if we can read the events of the future, will be upon the Pacific Ocean. It is absurd to argue that Japan is not prepared for that contest in every way except possibly financially. Japan has enough transports to-day to carry 200,000 men at one time, and we have not enough on the Pacific to carry 12,000.

Now, the question has been brought up in regard to these submarines. I do not know whether the use of submarines is an efficient way of protecting our waters or not. I do not pretend to be an expert along those lines; but I want to give to you in just a few words the conditions out there, and then I want some gentleman who is opposed to torpedo boats and submarines to inform this country how to protect our coast.

Coming in from Puget Sound the channel is 3½ miles wide at its narrowest point. It averages 60 feet deep between the three forts. The tide is very swift. It is impossible to mine it; and there are at least ninety days in a year when a whole fleet of foreign vessels can run between those forts without being seen from either fort. There are no rocks in all of Puget Sound; there are no dangerous shoals. There are plenty of points at the entrance of Puget Sound where a fleet can run at top speed for a hundred miles.

Will some gentleman who is opposed to torpedo boats and submarines tell me how you are going to protect that channel?

Mr. LILLEY. That does not answer the question at all as to whether torpedo boats or submarines are any good or not.

Mr. HUMPHREY. I will leave that to gentlemen who have investigated the subject.

Mr. BUTLER. Have they made attempts to mine that channel?

Mr. HUMPHREY. They have not, because it is absolutely impossible, and the mere statement of the facts excludes all further talk on that point.

The CHAIRMAN. How many forts did you say they have there?

Mr. HUMPHREY. Three forts, situated at an angle, and at times when the enemy could be seen they would be very effective.

Mr. BUTLER. Why can not the enemy be seen at all times?

Mr. HUMPHREY. Usually in the fall we have very heavy fogs. There are about two months in the year when we have dense smoke, which is worse than the fog. It is an unusual instance, but I have seen smoke so dense in Seattle at 12 o'clock noon that you could not see a building across the street, from one side to the other.

Mr. LILLEY. Do you think a fleet would attempt to make an entrance into the harbor under those conditions?

Mr. HUMPHREY. I do not think an entire fleet would, but from the little I know about war I would think that an enemy would take the risk of losing one or two fast vessels in running down there, for the benefit it would be to them to destroy our navy-yard and to destroy the cities of Seattle, Tacoma, Bellingham, and Everett—and there is nothing in the world to prevent them.

Another point, in regard to torpedo boats: The Puget Sound is specially fitted for the use of torpedo boats, not only submarines, but ordinary surface torpedo boats. It is deeply indented with bays, in which those torpedo boats can be stationed, and a battle ship coming in could not see the torpedo boats until right upon them, or close enough for the torpedo boats to use their torpedoes. There is no way for an enemy to reconnoiter along the coast, because the forests are so dense it could not be done.

Now, I have given you our situation, and I want to put it up to this committee to solve. If you can solve it, it is your duty to do so, and we want you to do it. The War Department has recommended \$5,000,000 to complete the fortifications on Puget Sound, \$2,250,000 to be used this year. You can spend all of those millions of dollars you can proceed to fortify it as much as you please, but you will still leave a channel of safety for any fleet to come into that wants to come.

Mr. THOMAS. How wide is the mouth of the sound?

Mr. HUMPHREY. About 14 miles in the strait, but when you come down into the sound it is probably 7 or 8 miles wide.

Mr. THOMAS. How wide at its narrowest point?

Mr. HUMPHREY. Three and one-half miles. I have visited the forts out there myself. Of course this does not concern this committee, except as it concerns every citizen; but when I was up there they did not have two-thirds of the required number of men to man the guns they have. And many of the guns were not in shape for use. The day I was at the forts, on account of the fog, you could not have seen a battle ship a mile away.

The CHAIRMAN. What you say is very interesting to us, but nevertheless it is an exposure of a condition that we do not want to know, and therefore with your permission the stenographer will be instructed to eliminate that from the record.

Mr. HUMPHREY. Before you decide as to that, I would like to say that the President asked me as to the conditions on the Puget Sound, and I put the facts I have stated, and more, in a letter which I gave to him, and which the press has published.

The CHAIRMAN. Oh, if the press has published it, all right. Mr. Jones, we are ready to hear you.

[No. 18.]

**STATEMENT OF WESLEY L. JONES, MEMBER OF CONGRESS FROM
WASHINGTON.**

Mr. JONES. Mr. Chairman, and gentlemen, I do not pretend to be an expert on these naval matters, and the benefits to be derived from these submarines, etc., but in reference to that question, I have here a report regarding submarines by Vice-Admiral Fournier, of the French navy, which report I presume the members of this committee have seen. But in view of the questions that have been asked, I want to read certain parts of it in order that it may appear in the record. The information in this report is from a man who has studied this question and who should know about it.

The CHAIRMAN. I did not understand what the report is to which you refer; is it the last report on tests?

Mr. JONES. This is the official report of Vice-Admiral Fournier, of the French navy, who had command of the French naval maneuvers in 1906. I should say that this booklet I hold is not the whole report, but is taken from an article by the Admiral in *Le Continent*, on torpedo boats and submarines, and quoting from his report, after reporting upon the successful use of the ordinary torpedo boats for night attacks, and giving an outline of the maneuvers, the Admiral says:

In the first place, following the chronological order, the attempted bombardment of Algiers by the fleet demonstrated the fact that a small flotilla of submarines covering the waters not commanded by the guns was sufficient to render the attack abortive and even to force the commander of the fleet to abandon the attempt on account of the excessive risks run by his ships. The superiority of the mobile defence of a port by submarines over a fixed defense by batteries was demonstrated, for the submarine can prevent damages by the enemies' guns, which the coast artillery can not do, since they are only able to repulse the fleet after an engagement more or less prolonged.

In other words, among all the methods of harbor defense, the submarine alone is able to prevent, merely by the moral effect of its presence, any attempt at bombardment or the landing of troops, and in consequence the damages and disastrous consequences which would result therefrom.

In all that concerns the second operation; that is, landing of troops on the coast near Bizerte, the maneuvers of July 21 demonstrated the importance of the losses which a flotilla of submarines could inflict during the day upon the enemy's ships attempting to land troops, and to hold station afterwards for the purpose of supplying the troops and covering them with their guns.

After reporting upon the successful use of the ordinary torpedo boats for night attacks in the operations off Bizerte and Toulon, the Admiral says:

As to the attacks of the submarines, which took place off Bizerte and Marseilles during the 13th, 17th, and 31st of July, and the 2d of August, their success was still more astonishing.

On the first two days the average number of successful attacks for each submarine was 2½, and on the third day the average was three times for each boat. By successful attack is meant to approach without being seen to a point well within torpedo range of the enemy.

Of course that was not in actual warfare, but under such conditions as would, I presume, prevail in case of attack and defense.

At the close of the maneuvers in his order of the day, Admiral Fournier states:

The operations of coast warfare which have been carried out by the fleet before Algiers, Bizerte, Toulon, and Marseilles have shown incontestably that the chief arm of defense of ports is the torpedo in all its forms, but especially when used by torpedo boats at night and by submarines by day. The following figures show what ravages the torpedo boats and submarines have made in the ranks of a fleet which took part in these operations:

"The fleet had put out of action 5 vessels before Bizerte, 5 before Toulon, 16 before Marseilles during the morning of July 31, 25 before Marseilles during August 2, without counting those which would have been torpedoed before Algiers, where the submarines were not present during the maneuvers of July 6. It can not, therefore, be too emphatically insisted upon that the protection of the coast of France in the future will be by a numerous fleet of torpedo boats and submarines covering the ports and the points on the shore most accessible to attack by an enemy. Such a fleet will have even greater effect than shore batteries. At sea the arm to win must incontestably be the vessel of large displacement, but torpedo boats and submarines can destroy a victorious fleet wishing to take advantage of its success by finally attacking the enemy's ports. From this point of view the coast operations of our fleet have profitably taught us lessons which carry us beyond the point where they were left by the English navy in its brilliant mobilization maneuvers on the high seas last month."

In his final conclusion the Admiral declares that in the future no battle fleet will be able to attain its full efficiency, defensive and offensive, and above all as a preventive of all possible aggression unless there be associated in its composition submarines with the heavy fighting ships.

Now, I do not know what experience the Admiral has had or whether he is an expert and competent to speak on this matter, but I assume that he is.

I also have here an editorial, which appeared in the *Army and Navy Register* of November 30, 1907, on the submarine. It says:

The submarine has survived the critics who were wont, not so many months ago and within our own Navy Department, to describe that type of war ship as an interesting but costly and useless mechanical toy. It has demonstrated its usefulness as an implement of warfare and has taken its place in the list of vessels which to-day are representative of the most efficient forms of floating aggression—the battle ship, the scout cruiser, and the surface and submerged craft. Congress will undoubtedly confine its provisions in the next increase in the Navy to these three principal elements of naval strength. They combine the sources of mobile and enduring power and assure the maintenance of national defense with a provision of the means of national offense in proportion to the appreciation of Congress of that situation.

The latest compilation of naval construction abroad shows that up to March of this year Great Britain had 37 submarines in commission and 11 more in various stages of construction. Her earlier ones were about 63 feet long, with engines of 160 horsepower; the latest British type of submarine is 135 feet long, 600 horsepower. Russia has 30 submarines built and building. France, according to latest reports, has 40 in commission and 59 others on the ways. Her biggest boat is 200 feet long, 1,700 horsepower, makes 15 knots, carries torpedo tubes, and cost \$500,000. Japan has 7 submarines, Italy 6, Germany 3. It will be seen that the United States is still far behind in the march of progress and that with the need of more battle ships there is the necessity for more torpedo boats, and especially those of the submarine variety.

It has been shown by Sir William White that much must depend for naval victory upon the torpedo vessels and that the submarine is an absolutely necessary complement of the surface torpedo boat. It is important in this connection to quote from the paper on submarines read at the fifteenth general meeting of the Society of Naval Architects and Marine Engineers, held in New York, November 21 and 22, by Mr. Mason S. Chace, who was in the Japanese service as technical adviser during the recent war and who had charge of the design and construction of several submarines in that connection. He says that the submarines would have been in that war of valuable service "both in rendering difficult, if not impossible, a close blockade of

Port Arthur" and "in seriously interfering with the work of landing Japanese troops on the Korean coast." It is also advanced, from the same source, "that submarines, using Port Arthur as a base, could have made attacks on the dockyards (Sasebo and Maizura) and ports (Moji and Shimonsiki) of the neighboring Japanese coast, and that, vice versa, Japanese submarines could have penetrated the harbor of Port Arthur."¹

Suggestions of this sort open the door to speculation as to what might have happened had the Russians possessed the submarines which would have given them such a protection against their alert and penetrative enemy. It was also stated by Mr. Chace that "existing types of submarines used in conjunction with mines tend to limit the rôle of the battle ship in wars of the future to fighting on the high seas." Anything, of course, which restricts the area of usefulness and of efficiency of the battle ship must be admitted to the list of indispensable war vessels. The submarine, therefore, has introduced an important element into naval strategy. It has furnished the real menace of the battle ship, the functions of which, as Mr. Chace has pointed out, have now been limited to the high seas, and prevented from exercising its demoralizing effect and actual damage of operating near the coast. The submarine has obtained a permanent position in the navies of the world.

Of course, it is for this committee to investigate very carefully and determine whether or not these submarines are effective instruments of naval warfare, but assuming that they are such effective instruments, it seems to me, gentlemen, that they would be of incalculable benefit to the Pacific coast. Of course, I speak more particularly with reference to Puget Sound, but I am not advocating and pleading for submarine boats simply for that place. If these boats are what is claimed for them, the nation as a whole is interested in their construction—not only the Pacific coast, but the Atlantic coast and the Gulf ports. If they will do what is claimed can be done with them, it seems to me they are the most effective coast defense of which we can avail ourselves. That they will be an effective arm of our national defense no one who will study the question can very well doubt. They have passed the experimental stage. All the advanced nations are using them, and their experts speak in the highest terms of their work and efficiency. We should not be behind. If they are what is claimed each submarine is worth more than a battle ship. The presence of even one in a harbor may keep an entire fleet away and allow our own to cruise on the high seas.

As most of you know Puget Sound is simply like the arm and the hand, the arm part opening out to the sea, almost 125 miles in length, and from it various fingers branch off into the interior. The cities are located in the interior; that is, on the interior sections. Seattle is probably 140 or 150 miles from the mouth of the strait; Tacoma then is further up the sound, and the other cities are around the edges of the various fingers of this hand, you might say.

As Mr. Humphrey stated, the channel of Puget Sound is very deep, some places being from 600 to 1,000 fathoms in depth, so that vessels can come right in. Whether or not they would try to come in in a fog or in dense smoke is another question. They might do it.

Mr. LOUDENSLAGER. Is the sound navigable during the continuance of these fogs and the dense smoke?

Mr. JONES. Oh, yes; it is navigable, especially by the sound boats. Their pilots are well acquainted with the bays, inlets, etc. These submarines, it seems to me, under conditions like that would be specially valuable by way of defense. With wireless telegraphy and with scouts out, there would be no trouble in finding out about the approach of the enemy's ships, and these submarines could remain on the surface around a point, behind an island, or in a side arm until they were just ready to dart out to intercept an approaching boat,

sink beneath the surface, and discharge their torpedoes. If they are as effective as the experiments seem to indicate they would certainly be most effective in these waters.

Grays Harbor is another indentation on the coast where they might be used with very beneficial effect; and also down at the mouth of the Columbia River. These are the principal points along the Washington coast. There are some other points down along the Oregon coast, but, of course, Mr. Ellis, of your committee, is entirely familiar with those.

I do not know that it is necessary to say anything further about this matter. It is a policy on which your committee will have to determine. It has been more my desire to lay before you the conditions as they exist on Puget Sound rather than to argue the merits or demerits of submarines. I have assumed the decision on that to be in the affirmative. You gentlemen know more about that question than I, and you will no doubt investigate it very carefully.

I had intended to say just a word about the Puget Sound Navy Yard. Your time is short, and I will detain you but a moment more. Some of the members of this committee have been out to that navy-yard, and I think they will vouch for the truth of my statement when I say that there is no navy-yard in the country better located than the one on Puget Sound.

Mr. LILLEY. You are right.

Mr. JONES. I am glad Brother Lilley agrees with me on that anyhow. For every dollar the Government has expended there it has gotten a dollar's worth back; and if we are going to have navy-yards, as it seems to me we must have, there is no place on the Pacific coast better situated at which to build a yard than that at Puget Sound. This is the testimony of every man whether civilian or naval officer who has visited it. We would be glad if those who have not, and those who have, too, visit and see for yourself. We have something good from a naval and governmental standpoint and we want you to see it.

During the last Congress the committee authorized \$1,250,000 for a dry dock; but it was found that the estimate was not sufficient, and with the bids offered they were not able to make a contract.

The CHAIRMAN. Why can they not build out there as cheaply as in the East?

Mr. JONES. I can not say, Mr. Chairman, whether the report indicated that this dry dock would cost more to build there than in the East. But labor has been extremely high out there for the last five or six years, and difficult to get. I presume labor is higher out there than here. Possibly material is also higher.

Mr. LOUDENSLAGER. Is there not some desire on the part of the Department to increase the size of the dock, on account of the larger vessels?

Mr. JONES. I think so. It seems to me we ought to have as large a dock as may be necessary to accommodate ships for many years to come. You don't build a concrete dry dock for a day, but for years to come. Battle ships are increasing in size. The dock should be large enough for the largest of ships of the future. The dry dock built there years ago is one of the best in the country. It was built of wood, in the first place, and it has, I suppose, docked as many vessels as any

other single dock in the country in the same period of time, and it is still an efficient dock.

Considerable repairs have been made in the last few years, and we certainly need, in connection with the old dock, a new one. Vessels can come to this yard with their own steam; they have plenty of depth in the channel and in front of the yard, and it seems to me this committee ought to do whatever is necessary to make that a first-class navy-yard. Some one has suggested that we have a floating dock there, a steel dock. I notice that Admiral Holliday, in his statement at the hearing, says that the water is not deep enough for it. We have about 60 feet of water in the basin. I do not know what depth is necessary for a floating dock myself.

The CHAIRMAN. Fifty-two feet.

Mr. JONES. We have more than that, but of course that depth does not come in to the shore. But the main thing is to have docks there, several docks, for the purposes of the Government, and I hope the committee will consider that very carefully, as well as, of course, the other recommendations of the Department. I believe you will do the best you can in caring for this yard, because in doing it for the yard you are doing it for the Government.

Mr. HOBSON. May I ask a question? Have the members who are taking up this question contemplated building surface torpedo boats as well as submarines?

Mr. JONES. Both.

Mr. PADGETT. Which would be the better, in your judgment, a dry dock or a floating steel dock?

Mr. JONES. I do not know about that. That again is a matter for the naval experts. I would think that a permanent concrete dock would really be the best, but my opinion is worth nothing on this point. The main thing I want is to get whatever is necessary. The battle ships are going to the Pacific. We don't propose to let them all come back anyway. This is the only yard they can come to. We want more than one dock to care for them. Two might be disabled at once. What would we do then?

Mr. PADGETT. Have you made any investigation as to which would be the more serviceable?

Mr. JONES. No, I have not; I will leave that for the naval experts to determine. I thank you, gentlemen, and will not detain you further.

Thereupon, at 11.45, the hearing was adjourned.

[No. 19.]

COMMITTEE ON NAVAL AFFAIRS.

Subcommittee on Construction, Repair, and Steam Engineering

**House of Representatives,
Washington, D. C., Thursday, January 23, 1908.**

The subcommittee met at 2 o'clock p. m., Representative Loud (chairman) in the chair.

(The subcommittee thereupon proceeded to the consideration of the bill (H. R. 7578) "to purchase three new steam colliers.")

The CHAIRMAN. In order to detain Admiral Capps as short a time as possible, I think we had better hear him first.

Mr. ROBERTS. Have you the bill there, Mr. Chairman?

The CHAIRMAN. Yes; I have the bill. The bill under consideration is House bill 7578, introduced by Mr. Roberts, for the purchase of three new steam colliers. I presume you all have copies of the bill before you, so there is no necessity for reading it.

Mr. ROBERTS. Let me suggest that for the sake of getting it in the record you read it or have it incorporated.

The CHAIRMAN. It will be incorporated.

The bill, H. R. 7578, is as follows:

A BILL To purchase three new steam colliers.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Secretary of the Navy is hereby authorized to purchase three new steam colliers of American registry, ready for service, having a cargo-carrying capacity of seven thousand two hundred tons dead weight each, at a cost not exceeding six hundred and nine thousand one hundred and seventy-six dollars and forty-five cents each.

SEC. 2. That the sum of one million eight hundred and twenty-seven thousand five hundred and twenty-nine dollars and thirty-five cents is hereby appropriated, out of any money in the Treasury not otherwise appropriated, for the purchase of the colliers above authorized.

The CHAIRMAN. I presume the first step will be to inquire as to the necessity for this purchase, and how this bill originated.

Mr. ROBERTS. I would suggest that Mr. Lyons can give the committee information as to how the matter came up originally.

The CHAIRMAN. The Admiral is to be heard first.

Mr. ROBERTS. The Admiral, I apprehend, is very busy now.

The CHAIRMAN. We will proceed, then, to some matter in which he is immediately concerned.

Mr. ROBERTS. If I may offer the suggestion, I apprehend that the committee desires to get the Admiral's testimony as to the mechanical construction and the desirability of these colliers from that stand-

point; and any views he may have as to the necessity for vessels of this kind in the navy. That might come in at any time, perhaps.

Mr. HOBSON. If the Chief Constructor is not in a very great hurry and it is desired to start in this way, I believe the representative of the Bureau of Equipment would be the logical one to take first. That might be gotten through with in a few moments, and then we could relieve him and go on with the Chief Constructor, and then bring the representative of the Bureau of Equipment back later.

Admiral CAPPS. I do not care to interrupt the orderly progress of the hearing. If you would like to get the views of the representative of the Bureau of Equipment as to the desirability of having colliers of this type for the transportation of coal at a certain speed, etc., that could be gotten very quickly.

The CHAIRMAN. It seems to me to be very desirable that before proceeding to the merits of the boats we inquire into the necessity for the purchase. Then we will ask Commander Davis about that.

**STATEMENT OF COMMANDER CLELAND DAVIS, U. S. NAVY,
BUREAU OF EQUIPMENT.**

Mr. ROBERTS. Please state your official position.

Commander DAVIS. I am attached to the Bureau of Equipment, in charge of coaling and the transportation of coal; acting chief of Bureau in the absence of the chief of Bureau.

The CHAIRMAN. Is the purchase of these colliers considered by your department essential and necessary at this time?

Commander DAVIS. It is considered by the Bureau as extremely desirable, if not absolutely essential. I might, perhaps, briefly state just how the question came about, and why it is that it is so important at this time. The necessity of having our own colliers or our own available shipping to transport coal was made manifest at the time when it was contemplated to send the fleet around to the Pacific. In making those preparations the Bureau of Equipment found that we were absolutely dependent on foreign vessels, or foreign coal, else we could not have sent the fleet to the Pacific at all. This was due partly to the fact that we had not a sufficient number of Government colliers, and partly to the fact that there were no American merchant vessels available, so we were completely at the mercy of the foreign shipping.

The CHAIRMAN. Has this exigency been taken care of?

Commander DAVIS. We had to employ foreign bottoms entirely, except for an occasional American vessel, which hardly counted at all.

The CHAIRMAN. Is it thought that the colliers in question here will be needed for any purpose connected with the trip of the fleet to the Pacific?

Commander DAVIS. They are needed immediately, or within the next two months, to continue to supply the fleet in the Pacific with coal from this side, principally because coal is not available out there—at least, it is of such poor quality that it is hardly fit for steaming purposes.

The CHAIRMAN. How many colliers are there now in the Navy?

Commander DAVIS. There are 16 colliers now in the Navy.

The CHAIRMAN. You have in your hand a list of the colliers, containing their tonnage and other data?

Commander DAVIS. Yes, sir; I will lay this before the committee.

The CHAIRMAN. You may give it to the stenographer.

(The above-mentioned list is as follows:)

Name of vessel.	Nominal speed, knots.	Tons displacement.	When built.	Purchase price.
Abarenda.....	9.00	6,705	1888	\$175,000.00
Ajax.....	10.00	9,250	1890	267,657.00
Alexander.....	8.75	6,181	1894	206,886.00
Arethusa.....	10.00	6,150	1893	218,992.00
Brutus.....	10.00	6,600	1894	215,000.00
Cesar.....	10.00	5,920	1896	177,947.46
General Alava.....	10.50	1,115	1895	(a)
Hannibal.....	9.00	4,000	1898	147,941.00
Iris.....	10.00	6,100	1895	145,000.00
Justin.....	8.30	3,300	1891	145,000.00
Lebanon.....	10.00	3,285	1894	225,000.00
Leonidas.....	8.50	4,023	1898	147,941.00
Marcellus.....	11.00	4,315	1879	90,000.00
Nanshan.....	10.50	4,950	1896	155,728.00
Nero.....	9.00	6,360	1895	215,000.00
Pompey.....	10.50	3,085	1897	111,929.00
Saturn.....	11.00	6,220	1890	230,000.00
Sterling.....	11.00	5,663	1881	190,000.00

^a Captured from Spain during the Spanish-American war.

Commander DAVIS. I might state that of these colliers only four are considered available to accompany the fleet on a long cruise, on account of their capacity.

The CHAIRMAN. What is the largest collier you have?

Commander DAVIS. The four largest are the *Ajax*, the *Alexander*, the *Brutus*, and the *Nero*.

The CHAIRMAN. When did you first consider the purchase of these colliers?

Commander DAVIS. The question was first brought to the attention of the Department, I think, in December last, or in November; I am not certain about that.

The CHAIRMAN. By whom was it brought to the attention of the Department?

Commander DAVIS. It was brought to the attention of the Department by—well, I do not know that part of it, sir.

The CHAIRMAN. By some one in the Department or by owners of the boats?

Commander DAVIS. I think it was by the owners of the boats.

The CHAIRMAN. Have you made any personal examination of the boats yourself?

Commander DAVIS. Not of the boats themselves; but I have examined their plans, so far as their equipment and construction is concerned, for the carrying of coal.

The CHAIRMAN. Do you find them in every way suitable?

Commander DAVIS. I think they are excellent boats for the purpose.

The CHAIRMAN. If you were building colliers for your service, would you build them larger or smaller than these?

Commander DAVIS. I would not build them any larger; I think, perhaps, of the same size, or maybe a little smaller. As they stand at their present capacity, they are well adapted to the needs of the service.

Mr. HOBSON. May I ask now, Mr. Chairman, for a statement of why he would not build larger colliers?

The CHAIRMAN. Yes.

Commander DAVIS. Because it is largely a question of time required to coal the fleet. For instance, under service conditions one collier would only coal one battle ship at a time and two colliers, each of half capacity, could coal two battle ships.

Mr. HOBSON. Do they not coal two at a time, as a matter of fact?

Commander DAVIS. Not as a rule; because they can only take a certain amount of coal out of the colliers on account of the hoisting apparatus, so that if there is a battle ship on each side it would require double the hoisting capacity of a collier to lift coal out.

Mr. HOBSON. Could not the hoisting apparatus be easily made equal to any requirement of that kind, with a collier built for that particular service?

Commander DAVIS. It could be done and it would probably help matters some, but they would not be able to coal twice as fast. Two battle ships would not be able to coal at the same time from a collier twice as fast as one.

Mr. HOBSON. Do you regard these colliers as capable of proceeding with the fleet?

Commander DAVIS. I do. They seem to be well adapted for it; I mean when the fleet is going at ordinary cruising speed.

Mr. HOBSON. Do you know their speed?

Commander DAVIS. If you mean proceeding with the fleet, under all circumstances, no; because these colliers are not built that way. Such vessels would burn so much coal that there would probably be very little left for the fleet after the fleet got to its destination. Colliers have to go at an economical speed. It is necessary, though, to have a few high speed colliers. These, I understand, have a speed of 12 knots.

Mr. HOBSON. Would you, in building a collier, have in mind chiefly the coaling of a ship from the collier, or the transportation of large quantities of coal to coaling stations?

Commander DAVIS. I would provide for the coaling of the battle ships from the collier itself. You would probably have to depend on that.

Mr. HOBSON. How would you provide for it, if you had the provision to make? How would you provide for the transportation of large quantities of coal to coaling stations at a distance?

Commander DAVIS. It might be done with the colliers at times when the fleet did not need them; otherwise it could be done by merchant vessels, or by the railroads.

Mr. HOBSON. Would you consider it feasible to fill lighters from a large collier, and coal many ships of a squadron simultaneously—that is, with special hoisting and discharging machinery on the collier itself?

Commander DAVIS. Yes; that would be perfectly feasible; but probably not as efficient as coaling directly from the collier. That has been our experience.

Mr. DAWSON. Is efficiency in coaling a large item in the question of coaling ships from colliers?

Commander DAVIS. It is a very important item, so much so that the commander in chief of the Atlantic Fleet is taking steps now to

put it on the same plane as gunnery in the way of competition; the idea being to give trophies and prizes, and to encourage competition, in order to increase the rate of coaling.

Mr. DAWSON. I do not mean so much as to the rate of coaling, but I mean in connection with the question of the cost of mechanical appliances, the saving of fuel, and the like.

Commander DAVIS. I do not quite understand you.

Mr. HOBSON. I will put it in another way. Could the rate of coaling be substantially increased if a number of lighters were loaded from a big collier, and a half dozen battle ships of the fleet coaled at the same time?

Commander DAVIS. Undoubtedly it would increase the rate of coaling.

Mr. DAWSON. Rather than having them wait their turns for a single collier?

Commander DAVIS. Yes, sir. Such a plan, however, can only be put into practice at a coaling station. Lighters could not go with the fleet. Most of the coaling of ships will be done when they are at sea, that is, when they are on cruise, or when they are preparing for the enemy, where the lighters would not be available. The idea is to have everything self-contained, so that the colliers can go with the fleet or meet it and coal the fleet wherever it may be.

The CHAIRMAN. Would it not be desirable to have in navies some larger colliers to go with the fleet when it is going on foreign voyages to a distance—to the Orient, perhaps? Would it not be desirable to have a larger class of colliers than these?

Commander DAVIS. Yes, sir; perhaps.

The CHAIRMAN. So that when they arrive at their destination they would have more coal for the fleet?

Commander DAVIS. Yes, sir; a certain proportion of very large colliers would be of advantage in that way.

Mr. HOBSON. If you were building colliers, with the sixteen that we now have, all of seven thousand tons or under, would you build any more of that size before you would build some larger colliers?

Commander DAVIS. I think I would. I think there ought to be at least one collier of from six to eight thousand tons, say, in time of peace, for every two battle ships and every two armored cruisers. I think that would be a fair proportion. Then would come the question of larger or special colliers for the transportation of coal to coaling stations.

Mr. DAWSON. How many larger ones do you think would be the proper proportion?

Commander DAVIS. I think, perhaps, three or four large colliers would be enough; because they could go at any time. It would not be necessary for them to accompany the fleet.

Mr. DAWSON. You have stated that only four of these are available for the reason that they have small capacity.

Commander DAVIS. Yes.

Mr. DAWSON. Is it not a fact that a large capacity would be a very valuable thing at a long distance from your base, even at the sacrifice of being able to coal only one ship, instead of two?

Commander DAVIS. Undoubtedly it would.

The CHAIRMAN. Would it not be far more economical in the maintenance of the ship, and in the cost of the transportation of the coal, to enlarge the colliers?

Commander DAVIS. There would be economy in less cost of transportation for the increased amount of coal. It is a question whether that amounts to very much or not. There are large vessels and small vessels engaged in the coal-carrying trade. A majority of English merchant colliers carry about six thousand tons.

The CHAIRMAN. Would there not be less cost, proportionately, in the manning of large boats, as compared with smaller ones?

Commander DAVIS. I do not think the difference is very important, Mr. Chairman.

Mr. HOBSON. There is one more question on that point that I would like to ask. Commander Davis states that twelve out of sixteen of these colliers are not available for the fleet because of their insufficient tonnage.

Commander DAVIS. That is for proceeding and remaining with the fleet on its present voyage.

Mr. HOBSON. On this voyage, we will say. I notice that a number of these approach more or less closely to the four that are available. Would not that indicate that those four themselves are pretty near the ragged edge of availability?

Commander DAVIS. I think myself they are small for colliers.

Mr. HOBSON. How much do those four carry, in tons?

Commander DAVIS. From thirty-five hundred to forty-eight hundred tons.

Mr. ROBERTS. Is that the carrying capacity?

Commander DAVIS. Yes.

Mr. ROBERTS. That does not include the bunker coal?

Commander DAVIS. No.

Mr. ROBERTS. They can not carry over 5,000 tons cargo?

Commander DAVIS. No.

Mr. ROBERTS. May I ask Commander Davis a question or two, Mr. Chairman?

The CHAIRMAN. Certainly.

Mr. ROBERTS. Are you familiar with the routine which this particular bill took when it reached the Navy Department? What I am getting at is, whether or not this bill has been considered by the Board of Construction, as a board, and favorably recommended?

Commander DAVIS. I do not know whether the bill itself has been considered. I do know that the boats were considered, first, by the Bureau of Equipment, and recommended, and then by the Bureau of Construction and Repair, and I think recommended. Admiral Capps can probably tell you as to that. It then went to the Board of Construction, which also favorably recommended it.

Mr. PADGETT. I would like to ask a question or two. From whom is it contemplated to purchase the three colliers, Commander?

Commander DAVIS. I really do not know the name of the company.

Mr. ROBERTS. It is the New England Coal and Coke Company.

Mr. PADGETT. Have you inspected the specific colliers proposed to be purchased?

Commander DAVIS. Only the plans.

Mr. PADGETT. You have not seen the ships themselves?

Commander DAVIS. No, sir; I have not seen the ships themselves.

Mr. LOUDENSLAGER. Do you know whether these boats are afloat or not?

Mr. PADGETT. I was going to ask him if the boats are completed and afloat.

Commander DAVIS. I understand they are all afloat, and practically ready for delivery.

Mr. PADGETT. Do you know anything personally as to the character of the boats, as to their make-up—I mean whether they are good or defective?

Commander DAVIS. Only as I could tell their features from the plans.

Mr. PADGETT. Just from the plans?

Commander DAVIS. Yes, sir.

Mr. PADGETT. What is the proposed cost of the boats?

Commander DAVIS. That I could not tell you, sir. That is in the bill.

Mr. ROBERTS. If you will pardon me, the bill provides a purchase price of \$609,176.45 each; and the Department, in a letter which has not yet gone into the record, but which will later, recommends the purchase at a price not exceeding \$600,000 apiece.

Mr. PADGETT. For the three?

Mr. ROBERTS. Yes; \$1,800,000 for the three. That is, the Department fixes that price.

Mr. PADGETT. Now, Commander, I would like to ask you if these colliers are regarded as good, safe, secure, and suitable boats for the purpose?

Commander DAVIS. They are regarded as very good boats for the purpose.

Mr. PADGETT. In every respect?

Commander DAVIS. In every respect.

Mr. PADGETT. If that is true, what is the advisability or the reason for the Government building a collier of less capacity at a cost of \$1,550,000, when we can buy three for \$1,800,000, and each one of the three of larger capacity than the one we are building?

Commander DAVIS. That, Mr. Padgett, is a question which Admiral Capps is prepared to answer.

Mr. PADGETT. I would like—

Commander DAVIS. I am not concerned with the construction of those boats in my capacity. My duty is in the Bureau of Equipment.

Mr. PADGETT. But these three that are recommended for purchase are of such a character as to justify the Government in buying them, and in using them, and in relying upon them?

Commander DAVIS. Yes, sir.

Mr. HOBSON. Ask him the speed of the Government boats, and the speed of those.

Mr. PADGETT. He said twelve knots.

Commander DAVIS. I might say, Mr. Padgett, that I am not familiar with the details of the Government colliers that are being built.

Mr. PADGETT. I understand that, but the point I want to get at is this. You do state that these colliers, of a capacity of more than seven thousand cargo tons are in every respect worthy to be purchased and to be used, and to be relied upon by the Government. Now, if that is true, the question naturally presents itself to my mind, why should we pay \$1,550,000 to build one of less capacity?

Commander DAVIS. I might say that there are features which would make a great difference in the price. If I had the data at hand I could explain. These colliers—

Mr. PADGETT. That is the very question I want to get at. Are there other features that make a difference of \$900,000 in one collier of less carrying capacity?

Commander DAVIS. You mean differing from these now under consideration?

Mr. PADGETT. Yes. In other words, a collier that would carry 5,000 tons. Are there any features that can make that collier worth \$1,550,000, as compared with these colliers that will carry 7,200 tons, at a cost of \$600,000?

Commander DAVIS. I think very probably there are, but not being familiar with the details of the Government colliers, of course, I am not prepared to say.

Mr. PADGETT. I would like to get somewhere and somehow what those features are that would warrant an expenditure of \$900,000 more for this collier with less carrying capacity?

Mr. LOUDENSLAGER. Will the Admiral answer that?

The CHAIRMAN. Let the Admiral take it up later.

Mr. LOUDENSLAGER. I presume the Department knows whether these vessels are built or not?

Commander DAVIS. Yes, sir.

Mr. LOUDENSLAGER. And how long they have been constructed?

Commander DAVIS. Yes.

Mr. LOUDENSLAGER. How long has the first one been constructed?

Commander DAVIS. I am not prepared to say that, sir.

Mr. LOUDENSLAGER. Is anybody in the Department able to tell us; do you know?

Commander DAVIS. Admiral Capps is.

Mr. ROBERTS. You will get all that when these witnesses come on.

The CHAIRMAN. Let us take the answer to that question from one of these gentlemen.

Mr. LOUDENSLAGER. I want to know when the first one was put into commission.

Mr. LYONS. The first vessel went into commission on the 22d of October, 1907; the second on December 2d, 1907, and the third, January 11th of this year.

Mr. LOUDENSLAGER. And they all are now engaged in commerce?

Mr. LYONS. In commerce; yes, sir.

Mr. LOUDENSLAGER. They are now engaged in the carrying trade?

Mr. LYONS. Yes; the first has made seven round trips; the second, five, and the other is just going on her first round trip.

Mr. LAMAR. Commander, have you, or has anybody else connected with the Department, so far as you know, made a personal examination of these boats?

Commander DAVIS. Yes, sir; I understand a board was appointed to examine and report to the Secretary of the Navy. I do not know who constituted that board.

Mr. ROBERTS. If I am not mistaken, Admiral Capps has been on one of the vessels.

Admiral CAPPS. I can give you a brief statement, as soon as you clear the ground with reference to the questions you have been asking.

Mr. HOBSON. Before Commander Davis retires may I ask one more question?

The CHAIRMAN. Yes.

Mr. HOBSON. Do you consider that these three colliers of which purchase is proposed, also the two colliers that are now being built in Government yards, and the four additional colliers recommended by the Secretary of the Navy, are all needed in the United States Navy?

Commander DAVIS. We need more. Some of the colliers which we now have should be replaced, as not being efficient. They are only of use along the coast and for short distances.

Mr. ROBERTS. If I may be pardoned one question, I would like to ask this right now. When Admiral Cowles was before the committee the other day he made the statement that if we had in the Navy ten colliers like these under consideration the Department could do away with the carrying of coal in foreign bottoms. Would you agree with that statement?

Commander DAVIS. I can only say that in providing coal for the passage of the fleet to the Pacific—that is, to San Francisco—it has required 22 vessels of foreign register and 8 of our own.

Mr. LOUDENSLAGER. Averaging about 4,500 tons?

Commander DAVIS. Averaging about 4,500 tons—something like 130,000 tons of coal.

The CHAIRMAN. Admiral Capps has suggested that he would be glad if we would take up the subject of the cost of the boats before we take his statement, and I do not see any objection to that, so we will now hear from the owner of the boats.

STATEMENT OF H. S. LYONS, ESQ., REPRESENTING THE NEW ENGLAND COAL AND COKE COMPANY.

Mr. LYONS. Mr. Chairman, to give you a brief history of how the boats came to be brought to the attention of the Department, and to how we came to build them, I will state that the New England Coal and Coke Company is a subsidiary company of the Boston Consolidated Gas Company, which furnishes gas for the city of Boston, the surrounding towns and cities. We found that we would rather replace with domestic coal the coal which we now get from Nova Scotia, and consequently we began to make an investigation in the South as to sources of supply. There is a new railroad being built through West Virginia, called the Virginia Railway, and they are going through virgin fields of coal. We began to negotiate with them, stating that if they would build docks at Norfolk, Va., we would buy our coal in West Virginia, have our ships come into those docks, and transport it from Norfolk in our own bottoms. The railroad people assured us that their railroad would be finished by the first day of this month, January, 1908; and that if there should be any delay, it would be finished by the first day of May. They have not been able to carry out their promise and finish the railway. The railway is not completed, and the docks are not completed.

We went ahead on the assurance that they would be finished, and we have built the ships; and as you know they are completed and in service under charter.

The manner in which the ships came to be called to the attention of the Department, as I understand it, was this. The ships were built at the Fore River Ship Yards, and the designer of the ships, Mr. Brown, is here with us and will tell you all about the detail of it, if you wish to ask him.

During their construction the inspectors who were at the Fore River Yards, watching the construction of various battle ships that were being built there, called the attention of the Navy Department to the fact that these colliers were being built, and what modern colliers they were, both as regards the manner in which coal was handled, and the speed, and the minimum amount of coal they would burn on their trips. I will say that the building of these colliers has been the result of hard study on the part of the marine superintendent, Mr. Skentelbery, who has been in the ship business a long time, and other experts who have been engaged in the coal and collier business for a great many years. Mr. Skentelbery now has charge of the colliers that deliver our coal from Nova Scotia, and he also has charge of these ships.

When the Navy Department began to think about sending the fleet around to the Pacific, one of the inspectors at the navy-yard said: "If those colliers can be put into the service of the United States, we need them." I was asked to come and see Admiral Cowles. I did, but he had just started for the West, and they referred me, in the Navy Department, to Mr. Wrenn. He said that they knew of the colliers, and that they were badly in need of modern colliers, and would be especially in need of them if such a thing happened as the sending of the fleet to the Pacific. You will remember that this was last July. He said that they would like to negotiate for those colliers, first under a charter, if possible, and then afterwards to purchase them; that they needed colliers very badly, and that there was a good deal of trouble about getting American ships, etc. We went into the matter of negotiation with the Navy Department with the idea of chartering the colliers to them, they saying that nothing could be done about purchase until after Congress met. We found, however, that we could not compete with the foreign ships. The President treated us very fairly on it, and offered extra inducements to us to come into it, but we found we could not do it. We had to withdraw from that. Admiral Cowles said to me: "Are you going to have use for these ships immediately upon their being completed?" I told him it looked as if we would not; that the Virginia Railroad people were not able to finish the railroad, and that the docks were not completed, and that the ships would be in service and completed. He said: "They are just what we need, and we would like to buy them. I wish you would consider the question as to what you will sell them to us for. We will not give you a fancy price for them. We would like to buy them, but we will have to ask Congress for an appropriation."

Our company took the matter up and made an estimate of the cost, and concluded that as we had no need for them at present, and would not have for another year, which would give us plenty of time to duplicate them, we would sell them to the Government for what they cost us, with a fair profit.

The CHAIRMAN. Then, as a matter of fact, you opened the negotiations when you went to see Mr. Wrenn?

Mr. LYONS. First, we were spoken to about it by some gentleman at the yard where they were built. We opened negotiations last July.

The CHAIRMAN. But that person at the yard was not anyone in authority?

Mr. LYONS. No; that was not authoritative.

The CHAIRMAN. May I ask what the contract price was with the Fore River company?

Mr. LYONS. The contract price with the Fore River company was in the neighborhood of \$500,000, and we had to pay extra for inspection. We also had to pay for plant, extra.

The CHAIRMAN. Will you give the items specifically?

Mr. LYONS. I have not the exact figures, but I will give them to you just as closely as I can. The contract price was \$500,000. We have not got the figures completed yet. Our auditors are going over the books of the Fore River yard. Mr. Skentelbery tells me that \$515,000 apiece would be the original cost. In addition to that, you remember, we have borrowed money. The money we have borrowed on the ships has cost us \$35,000 for each ship—the interest on the money. That makes \$550,000 apiece. Then, we have extras for office help at Boston, etc.

The CHAIRMAN. May I ask if that interest began before the boats were completed?

Mr. LYONS. No, sir; we borrowed \$1,000,000, and it cost \$70,000 for one year, to start on, but not before the boats were built. We figure it at \$35,000 to each boat. I went into that question last week with Mr. Richards, and he said it would be at least that amount, and he did not know but that it would show up more.

Mr. ROBERTS. On this point, before we get away from it, I think there is a misunderstanding as to how these colliers were brought to the attention of the Department. If I understood it, they were brought to the attention of the Department on the basis of a charter only.

Mr. LYONS. Yes; at first.

Mr. ROBERTS. And later the Department suggested the purchase, when they could not come to terms on a charter.

Mr. LYONS. Yes, sir.

Mr. HOBSON. Are you anxious or not to sell these boats?

Mr. LYONS. Anxious in this way, Mr. Hobson. We can have boats built for our purpose and have them ready for us within a year, at the time we expect to get the railway facilities down South. I have made an investigation, and I figure that it will be eighteen months before they will be ready for us.

Mr. HOBSON. Can you duplicate the boats this year at a price lower than the price you have paid for those?

Mr. LYONS. We went into that matter with the gentlemen in charge of the Fore River yard, and I think Mr. Brown is prepared to answer that. They tell us that they can not; that it will cost quite a considerable amount more.

Mr. HOBSON. What do you regard as a reasonable profit?

Mr. LYONS. Ten per cent. The regular profit allowed on such transactions, as I understand, is 18 per cent, but we make it 10 per cent.

Mr. HOBSON. What is your horsepower?

Mr. LYONS. I will have to refer you for that to these gentlemen here. These are my experts.

Mr. PADGETT. I notice the bill provides for the purchase at a cost not exceeding \$609,176.45 for each boat. That seems to indicate that there has been some very close figuring.

Mr. LYONS. Yes. It is figured to a cent.

Mr. PADGETT. Do you know how those figures are arrived at?

Mr. LYONS. That is as closely as we could estimate it from the bill that was made up, six hundred and nine thousand and some odd hundred dollars. That was what we figured would be the estimate of the cost of each boat. The costs are now being gone over by a board of audit between the builders of our boats and our company, and Mr. Brown tells me that it will be six weeks before the figures are completed.

Mr. HOBSON. I would like to ask one question of the expert before the Admiral begins his testimony. It may possibly be of use to us in connection with his testimony.

STATEMENT OF HARRY BROWN, ASSISTANT MANAGER, FORE RIVER COMPANY.

Mr. HOBSON. Mr. Brown, will you give us the weight of the hull and of the fittings, and the weight of machinery, and also the horsepower?

Mr. BROWN. The weight of the machinery, wet, is 570 tons. The weight of the machinery, dry, is 475 tons. The weight of the hull and fittings is 2,830 tons, and the horsepower is 2,700.

The CHAIRMAN. What would you consider a fair price per ton for a hull of that description?

Mr. BROWN. Hull and machinery?

Admiral CAPPS. The hull, alone.

Mr. BROWN. Do you mean on the builder's weight? That is 2,830 tons. That I gave you.

Admiral CAPPS. Yes.

Mr. BROWN. It is approximately \$145 a ton.

The CHAIRMAN. What is the cost per horsepower for machinery?

Mr. BROWN. The cost per horsepower is \$55.

Admiral CAPPS. How much?

Mr. BROWN. That is not as to weights. On dry weights, in the neighborhood of \$325 per ton.

Admiral CAPPS. The horsepower was the question.

Mr. BROWN. About \$55 a horsepower.

Mr. HOBSON. This will require another question.

Admiral CAPPS. I was going to ask if the cost to duplicate a hull and machinery of this character will be greater now than it was at the time the vessel was built.

Mr. BROWN. No, sir.

Admiral CAPPS. Is it less?

Mr. BROWN. It is.

Admiral CAPPS. Can you give a rough percentage?

Mr. BROWN. I should say that the cost of materials for that sort of a vessel would be approximately 2 per cent less.

Admiral CAPPS. And labor?

Mr. BROWN. Labor would be no less.

Admiral CAPPS. Would it be the same?

Mr. BROWN. Yes, sir.

Admiral CAPPS. And that applies to hull and machinery?

Mr. BROWN. Yes, sir.

Admiral CAPPS. How long did it take to build the vessels?

Mr. BROWN. To duplicate these?

Admiral CAPPS. No; how long did it take to build these actual vessels?

Mr. BROWN. The first one was built in ten months and a half, and the second—well, the three were completed within a year.

Admiral CAPPS. If you received an order for three others of the same character, could you shorten the time?

Mr. BROWN. No, sir; we would not want to guarantee any shortening of time.

Admiral CAPPS. If you had a contract for three of the same character, or three identical vessels, would not the fact of having previously built three materially lessen your cost of production?

Mr. BROWN. No, sir.

Admiral CAPPS. In other words, you have no plans, patterns, or anything in connection with these ships that could be utilized in the construction of additional identical ships?

Mr. BROWN. This is the average cost of the three ships, so that figuring on the overhauling of patterns that have been damaged and preparing new schedules, overhauling plans, etc., the cost would be practically the same for each ship as one-third of the original cost.

Admiral CAPPS. Can you give any definite percentage of decrease in cost on the whole contract price for reproducing those three vessels at the present time?

Mr. BROWN. We could not reproduce them at the contract price.

Admiral CAPPS. Would it cost you more now?

Mr. BROWN. It would cost us more.

Admiral CAPPS. I understood you to say it would cost less.

Mr. BROWN. I said less to duplicate them, but we did not make any money. That is the solution of that.

Admiral CAPPS. But I am asking for the cost.

Mr. BROWN. As I say, there has been practically 2 per cent reduction in materials. The raw materials on one of the ships would average \$275,000 to \$280,000.

Admiral CAPPS. I understand, then, that these vessels were built at cost?

Mr. BROWN. Yes.

Admiral CAPPS. And without profit to the Fore River Ship Building Company?

Mr. BROWN. Yes, at a loss to that company.

Admiral CAPPS. Did you know beforehand that you were going to build the vessels at a loss?

Mr. BROWN. We expected to come out even; the same as all other shipyards do, to keep the force going.

Admiral CAPPS. Is the New England Coal and Coke Company connected in a business way with the Fore River Ship Building Company?

Mr. BROWN. No, sir.

Admiral CAPPS. Are you in the habit of making contracts at cost?

Mr. BROWN. We are in the habit of making contracts guaranteeing a limit of cost, on a cost and percentage basis, which was the basis on which this was made. It was made on a guaranteed limit of \$500,000 and 4 per cent interest. In other words, if we built under that a rebate would go to the New England Coal and Coke Company, the same as we built five other vessels.

Admiral CAPPS. If you were going to build or construct the same class of vessels for the Government to-day, and were very anxious to

get the contract, and you bid as low as you dared to bid, what would you consider a safe bid?

Mr. BROWN. Six hundred and twenty-five thousand dollars.

Admiral CAPPS. You would not be very anxious for the contract, would you?

Mr. BROWN. And would be very anxious for the contract.

Mr. HOBSON. I wanted to ask one question, to see that he is right in putting the cost of machinery at \$55 a horsepower. Is that the estimate of the real cost?

Mr. BROWN. I might tell you, candidly, that it is about the average cost of the three boats.

Mr. HOBSON. Do you regard that as the usual cost of such machinery in merchant vessels of that kind?

Mr. BROWN. No, sir. I should say probably that would be a trifle high. This vessel is fitted up with an evaporating plant and lots of auxiliaries that probably would not go into an ordinary merchant vessel.

Mr. HOBSON. This includes the auxiliary machinery?

Mr. BROWN. Yes.

Mr. HOBSON. You did not include that in fittings?

Mr. BROWN. When I speak of auxiliary machinery, I speak of that applied to the steam engineering, windlass, etc.

Mr. HOBSON. What do you regard as the current cost of constructing machinery in merchant vessels of this low speed?

Mr. BROWN. The Scotch boilers—

Mr. HOBSON. I mean per horsepower.

Mr. BROWN. It might be done, depending on the condition of the market at the time the contract is placed, as low as \$50 a horsepower.

Mr. HOBSON. Do you not know of its having been very much lower than that?

Mr. BROWN. Not on the coast. On the Lakes, yes; very much lower; because on the Lakes they do not use condensers and do not have circulating pumps. That is simply a fresh-water proposition.

Mr. HOBSON. Do you regard \$55 as a reasonable estimate for the machinery of that vessel?

Mr. BROWN. On the coast, yes. I might add that I do not believe it could be duplicated for that figure, because we got a specially advantageous contract in connection with boilers which could not be duplicated.

STATEMENT OF REAR-ADMIRAL W. L. CAPPS, U. S. NAVY, CHIEF CONSTRUCTOR.

The CHAIRMAN. Admiral Capps has made an inspection of these boats. I want to ask if that inspection was made personally, or by a subordinate.

Admiral CAPPS. The inspection was made at my direction by the superintending constructor at the works of the Fore River Shipbuilding Company.

The CHAIRMAN. I do not think the names of the boats have appeared as yet.

Mr. ROBERTS. They are the *Everett*, the *Malden*, and the *Melrose*.

The CHAIRMAN. Which boat did he inspect?

Admiral CAPPS. He inspected the one at that time at the works, the *Everett*, and his report is here. If the committee desires, it can be placed in the record.

The CHAIRMAN. We had better have it.

Mr. ROBERTS. Can the Admiral tell us whether it was a favorable or unfavorable report?

Admiral CAPPS. The inspector was directed to make an examination of the vessel and to report the conditions as he found them. His report states as follows:

The contractors have submitted for the inspection of the superintending constructor, in connection with the examination of the vessel, reports of tests of the hull material employed in the construction of all of the vessels of the class, and have stated verbally that the material was supplied by the Lackawanna Steel Company, of Buffalo, N. Y., and that the contractors for the vessel had a resident inspector at the works of the Lackawanna Steel Company during the rolling of the material, and, furthermore, that the representatives of the United States Standard Registry of Shipping made, on their own account, at the works of the Fore River Shipbuilding Company, certain tests upon the material. An examination of the test reports offered for inspection by the Fore River Shipbuilding Company shows the material used to have been of an average tensile strength somewhat in excess of 60,000 pounds per square inch, with an average elongation in 8 inches in excess of 25 per cent. The pieces of material subjected to manipulative tests such as bending, hammering, etc., held in the office of the local inspectors for the vessel, which pieces have been viewed by the superintending constructor, appear to indicate material of working qualities not greatly different from standard structural material for naval vessels. The wood materials used for woodwork throughout the vessel appear to be in accordance with the specifications and of good quality. The wood decks, however, while sound and free from any great number of shakes, show numerous sound knots. While this material does not come within the terms of the specifications, page 3, "materials used throughout in every portion of the vessel must be the best in use, each of its kind, and the highest to which any interpretation of the plans and specifications will admit," it may be regarded as a reasonable meeting of the detailed requirements of paragraphs 50 and 51 of the specifications treating in detail of the wood decks.

An inspection of the vessel indicates that the workmanship upon the structural work of the vessel is excellent throughout, and this information is confirmed by opinions formed by the special mechanics attached to this office who during the course of work on the vessels have had them casually under observation. All structural work, so far as may be determined by an examination practicable at the present time, is in accordance with the specifications and plans, with possible exceptions in the matter of minor details, in which case equivalents may have been employed instead of letter of the specification.

The workmanship in connection with the joiner and carpenter work, so far as the same has progressed on the vessel inspected, appears to be first class and within the requirements of the specifications. The general arrangement of the several spaces to be fitted up for officers, crew, etc., are in accordance with the plans and specifications, and the fittings in these spaces, with possible exceptions in minor details, are in accordance with the plans and specifications.

All of the auxiliary machinery of the vessel, excepting auxiliaries within the main propelling machinery spaces, are of the manufacture of the Hyde Windlass Company, of Bath, Me., and of their well-known commercial types. It is believed that they may be regarded as satisfactorily meeting the specifications and suitable for their intended purposes. In connection with the steering gear it was noted that the keys for attaching the crosshead to the rudder stock are somewhat smaller than standard practice would require, and that the method of taking the weight of the rudder itself might be criticised. The specifications do not cover either of the points mentioned in any detail, and the work as executed was approved by the resident inspectors and is understood to be satisfactory in use.

The work in connection with the larger piping systems throughout the vessel appears to be of exceptionally good quality. There are no screwed flanges on these systems, the pipes in all cases having been expanded into the flange. It was noted in this connection that all suction branches in main tanks and connections between the piping and rigid bulkheads and all bends are made of lead pipe. This, however, is in accordance with the specifications and plans.

Work on the plumbing and fresh water systems is in hand, but has not progressed to a point making a detailed inspection of fixtures and piping practicable.

The design and character of the hull fittings with minor exceptions appears to be satisfactory and in conformity with the specifications. It is noted, however, that minor deviations from the specifications have been made such, for example, as the making of air port fixed frames of malleable iron or semisteel instead of yellow brass as required by paragraph 65 of the specifications, and the omission of fitting wood in the foundations under the cast-iron bollards as required by paragraph 62 of the specifications. It is also thought possible that some additional transverse stiffening may be necessary on the hatch covers to prevent deformation of these covers in handling.

The protection of the surfaces of the structural portions of the vessel appears to be satisfactory throughout excepting that both peaks and all main tanks have been cement washed. This cement wash has been applied over such mill scale as adheres to all unpickled plates, and it may be expected that, with time, this scale will be separated from the material and carry with it the cement wash. The wing ballast tanks, the reserve feed tanks, and the coal bunkers have had their surfaces protected with bitumastic enamel of the manufacture of Wailles & Dove, of Newcastle, this appearing to provide for these spaces a very satisfactory protective covering.

Referring to paragraph 2 of the Bureau's letter, the superintending constructor has the honor to state that he has made careful examination of the triangular upper ballast tanks and that, at his suggestion, one of these tanks selected by him was filled and put under pressure to a head corresponding to 5 feet above the main deck. The tank tested was, with the exception of a very limited number of rivets which showed only such slight weeping as would be provided for by corrosion in a very short time, perfectly tight. The superintending constructor is advised that all of these tanks were tested to a head of 5 feet above the main deck in the presence of the local inspectors of the company for whom the vessel is being built. From the examination made of these tanks, and the test to which the individual tank selected was subjected, the superintending constructor is of the opinion that they should be adequate to carry, without leaking or straining, the designed quantities of water ballast under all service conditions.

As a result of the examination made of this vessel by the superintending constructor, he is of the opinion that generally throughout the hull, fittings, etc., the material is of good quality, satisfactory for the purpose, and that the character of the workmanship throughout is very good.

This is from the superintending constructor for the United States Navy, at the works of the Fore River Ship Building Company. This inspection report was forwarded to the Department for its information, and subsequently other papers in the same connection were sent to the Department.

The CHAIRMAN. From all the information you have obtained do you consider that these boats are suitable and satisfactory boats to purchase for naval colliers?

Admiral CAPPS. For the transportation of coal at a moderate speed, or a speed practically the same as that of colliers now possessed by the United States Navy Department, the colliers proposed are in my judgment satisfactory. They are, however, in no sense comparable with the two seagoing colliers now under construction. While the colliers under construction at navy-yards have more than 2,000 tons greater displacement, and they actually carry less cargo coal, yet they have more than 5 knots, or 50 per cent, greater seagoing speed.

The CHAIRMAN. Yes; but what is the speed of these colliers?

Admiral CAPPS. The deep-load seagoing speed of the *Everett* class is 10 knots, and not 12. The speed when light, as I take it, was 12 knots—I believe that is correct.

Mr. BROWN. I should like to correct that statement by giving the actual results that have been accomplished.

Admiral CAPPS. I am speaking of the contract speed. The contract says 10 and 11 knots, 11 knots being the speed when light.

Mr. BROWN. That is guaranteed; yes.

Admiral CAPPS. Well, I have no further report to go by.

Mr. ROBERTS. As I understand, they exceeded that?

Mr. SKENTELBERY. Both the *Everett* and the *Malden* averaged 11.7 knots on two voyages between Baltimore and Boston.

Admiral CAPPS. I have no objection whatever to having additional data put in evidence, but I was speaking from the data in hand. The seagoing colliers now under construction in the navy-yards unquestionably will cost more, as has been pointed out to the committee on numerous occasions, than they would have cost under contract, assuming that the market for vessels were comparatively low, as it has been for some time past. I mention these facts with respect to colliers under construction and the *Everett* class, to indicate clearly that there can be no direct comparison without considering fully the qualities of each vessel. One is a very high-speed "fleet collier," intended to accompany the fleet at comparatively high speed. The other is a very moderate-speed cargo carrier, which could accompany the fleet if the speed of the fleet did not exceed 10½ or 11 knots. The extra speed of which these colliers are capable depends entirely upon the speed they may actually make in service, but, so far as our official information goes, the laden speed is 10 knots; so that in my judgment, as "fleet colliers," the vessels proposed are not suitable, but for the transportation of coal in the same manner as that now performed by our colliers I should regard them as efficient vessels and desirable vessels to purchase, if the price to be paid is clearly less than would have to be paid for vessels of that class if contracted for at the present time. And in that connection a profit on the actual contract price paid by the owners of these vessels should not, in my judgment, be considered.

Mr. ROBERTS. A profit on the contract price should not be considered; do I understand you?

Admiral CAPPS. Yes.

Mr. ROBERTS. How would you get at a fair profit?

Admiral CAPPS. The selling price of a vessel is governed by the desire of one party to sell and the anxiety of the other party to buy, while the actual cost of similar vessels may vary considerably. The contract prices of similar vessels may also vary considerably. In fact, we have instances in the past few years where the contract price for similar vessels has varied as much as nearly \$500,000. So that in fixing an arbitrary price for an article, where competition is being eliminated, I personally do not feel justified in recommending anything more than the actual cost price if that was fair and reasonable and not a profit on a contract price.

The CHAIRMAN. Would you consider the interest as proper?

Admiral CAPPS. Yes, perfectly; I think that reasonable interest is perfectly proper. I regard that as a part of the cost.

Mr. ROBERTS. And those other expenses that they speak of, plant and superintendence, and all those things?

Admiral CAPPS. Reasonable incidental charges are a perfectly legitimate part of the actual cost of the vessel.

Mr. ROBERTS. Let me ask you this, if I may: In your judgment, Admiral, could these vessels be duplicated by the Navy Department to-day if they were to advertise in the market, for the \$600,000 mentioned?

Admiral CAPPS. That is something about which no one can give exact information. I made some inquiries of this kind in connection

with the construction of the colliers we are now building in navy-yards, and I must say that approximate verbal statements did not always agree with formal statements in writing.

Mr. ROBERTS. One other thing, Admiral. Suppose this Congress were to authorize the Navy Department to build three colliers, duplicates of this *Everett* class. How soon, in your judgment, would the Government be in possession of those colliers?

Admiral CAPPS. You mean to—

Mr. ROBERTS. I am getting at how long it would take for the Government to get similar colliers through our system of advertising and going into private yards for construction.

Admiral CAPPS. If you had made up your mind as to the type you wished and had the plans and everything ready it would, under the law, be necessary to advertise for sixty days before bids could be opened. Then after that the contract could be made.

Mr. ROBERTS. Yes. What I am getting at is this. There has been testimony that these three colliers were all built for a private concern in a private yard inside of one year. Do you think the Government could get three similar colliers built under the ordinary conditions of shipbuilding in that time?

Admiral CAPPS. In a private yard?

Mr. ROBERTS. Yes.

Admiral CAPPS. I see no reason why we should not if they built them in the same way and with the same general character of inspection.

Mr. ROBERTS. I am not speaking about that; but with the Government system of building, and the Government system of inspection, would it not take the Government longer to duplicate the colliers than it took the New England Coal and Coke Company to get them?

Admiral CAPPS. Very likely.

Mr. ROBERTS. We can not take these short cuts that they do in commercial life in getting at results, due to the system under which we operate.

Admiral CAPPS. No.

Mr. ROBERTS. Would you think it a fair proposition to take into consideration on the question of cost the matter of immediate delivery of the completed boats?

Admiral CAPPS. That gets right back to the statement made a while ago. Such questions are largely dependent, almost entirely dependent, upon the necessity of one party to obtain, and the other to dispose of a thing.

Mr. ROBERTS. That would have something to do with it, but would it not be a fair thing to consider on the part of the Government that here is something that is available, and for which they have a need, assuming that they do have need?

Admiral CAPPS. In all questions of that kind I am of the opinion that you can not always determine upon a price which could be regarded as entirely fair and reasonable for the purchase of an article which can be furnished by a great many different people without giving such people an opportunity to bid.

Mr. ROBERTS. Admiral, do you know how the Department arrived at its conclusion in the recommendation cutting the price to \$600,000?

Admiral CAPPS. How it arrived at it?

Mr. ROBERTS. Yes; on whose recommendation it was done?

Admiral CAPPS. The \$609,176.45 was very obviously a price that was fixed by somebody; I do not know whom.

Mr. ROBERTS. The owner?

Admiral CAPPS. A certain amount of inquiry and investigation indicated that the cost should in no case exceed \$600,000. Therefore the Department's recommendation was that the purchase be authorized at a price not exceeding that amount, and unquestionably the Department would then exercise its right to obtain the vessels under the most favorable terms for the Navy Department. That was the idea.

Mr. ROBERTS. That change came about, then, in one of the boards that considered it?

Admiral CAPPS. That was the recommendation of the Board of Construction.

The CHAIRMAN. Another question along the same line. Speaking of the advantage of immediate delivery, might there not be the same advantage to the Department in having a boat constructed according to its own designs or needs—perhaps a larger boat, or with some change. In other words, that they would not, perhaps, build the same boats?

Admiral CAPPS. In the case of cargo colliers I would not attach very great importance to minor differences. As coal transporters I have no doubt they would be very satisfactory vessels.

Mr. HOBSON. Admiral, do you regard \$55 per horsepower as a good estimate of the current cost of machinery in vessels of that type?

Admiral CAPPS. I should regard it, for this class of machinery, so far as I am informed as to its character, as being a little high.

Mr. HOBSON. What would you regard—

Admiral CAPPS. I have not examined the plans of this particular machinery in sufficient detail to give an opinion with any exactness.

Mr. HOBSON. Do you regard \$325 per ton as a good price for the machinery?

Admiral CAPPS. The cost of machinery is usually based on horsepower rather than weight. I think the representative of the Bureau of Steam Engineering, Commander Norton, can give you more exact information on the subject of cost of machinery.

Mr. HOBSON. Do you regard \$145 as a reasonable figure per ton for hull and fittings in this class of vessels?

Admiral CAPPS. It is exceedingly difficult to figure cost per ton of hull and fittings without going into details. The actual cost varies under different conditions of the labor market and of the material market. While I might not consider \$145 per ton as being an excessive price in matters of this kind it is not so much what might be excessive as what would be the "market price," or the "lowest bid price" if contracted for after open competition. It might be possible, in fact is quite probable, that a ship of this kind, under a high labor market and a high material market, would cost more than \$145 per ton. It is also entirely probable that the same ship under a low labor market and low material market would cost less than \$145 per ton. That is the chance that the shipbuilder takes after the contract is once made. In this particular case it seems to be a question of determining the *actual cost* of this vessel as far as one can and the probable cost of a similar vessel if a contract were made at the

present time, and then to consider whether or not the Government really needs the vessel immediately or could wait a year or fifteen months.

Mr. HOBSON. Admiral, the statement has been made that the cost of these vessels was figured down to a cent, and it was also stated that it would take six weeks before they could find out the cost of the vessel. Therefore it is important to arrive at a fair estimate of the cost. According to the statement of the weight in machinery and the cost per ton, 570 tons of machinery, at \$325 a ton, would cost \$185,000. According to the estimate of 2,700 horsepower, at \$55 a horsepower, it would be \$148,000.

Mr. BROWN. As I told you, the dry weights were 475 tons.

Mr. SKENTELBERY. The cost of machinery is always figured on the dry weights.

Mr. HOBSON. There would still be a discrepancy, showing that the estimates are only approximate. Assuming that \$55 per horsepower and \$145 per ton for hull and fittings represent the cost of this vessel, would you regard that vessel as having been constructed economically, taking into account all the conditions?

Admiral CAPPS. I am really not sufficiently familiar personally with the details of the construction of this particular vessel to give as definite an answer to that question as I would like to give.

Mr. HOBSON. May I put it this way? It may be a leading question, but I want to get at some estimate, Mr. Chairman, with your permission. Would you regard \$50 per horsepower as a reasonable estimate, lacking the actual figures of the cost?

Admiral CAPPS. I should say that \$50 per horsepower would be reasonable.

Mr. HOBSON. Would you regard \$135 per ton as a reasonable figure for the cost of the hull?

Admiral CAPPS. In speaking of the cost per ton, as I said before—

Mr. HOBSON. And I wish to say also that I understand this includes the hoisting machinery and all fittings.

Mr. BROWN. Yes, sir.

Admiral CAPPS. There is no hoisting machinery, is there?

Mr. BROWN. Yes; there are some winches on the boat.

Admiral CAPPS. I mean for discharging.

Mr. BROWN. No.

Admiral CAPPS. A price per ton, based on the information at hand, is the sort of data that I hardly feel justified in attempting to give offhand, but I have no hesitation in saying that for this particular ship I should not regard \$135, if that is the figure you named, as unreasonable.

Mr. HOBSON. I named \$135, but I would rather have your opinion as to what would be a reasonable figure.

Admiral CAPPS. I should say \$135 would be reasonable.

Mr. HOBSON. That is all.

Admiral CAPPS. Or thereabouts. I wish to be distinctly understood as not aiming at an exact or definite figure without knowing all the details of the construction.

Mr. LAMAR. I would like to ask a question. You spoke, Admiral, about the colliers that are now being built by the Government having a greater speed. If the amount of money named in this bill were placed at the disposal of the Government, having regard to the

present needs of the Navy, would you invest it in colliers such as these that are proposed to be purchased under this bill, or would you build others similar to those being built by the Government?

Admiral CAPPS. So far as I am aware of the needs of the Department with respect to colliers, it needs both. The speedy colliers—that is, the 15-knot colliers—are very essential for an expeditionary force; that is, a fleet that is accompanied by its supplies, coal, stores, etc., must, in order to maintain the highest speed it can, have auxiliaries of approximately the same speed as that of the fleet. Speed equal to a fleet speed of 15 knots or more is entirely unattainable by any colliers we now have in the service, or by colliers of the description of those under consideration. There is, however, as I understand it, a very distinct need for colliers to carry coal to coal depots, and from the depots, of course, it is put alongside of the fleet by barges.

Mr. LAMAR. Taking into consideration the number of colliers of each kind that we have, which do we need most? If you had this money to expend, which would you use it in getting?

Admiral CAPPS. That is a question that the representatives of the Bureau of Equipment could answer much better than I could, because it is a matter that they have considered, the transportation of coal coming under the Bureau of Equipment.

Mr. ROBERTS. If there is no member of the committee who desires to ask a question, I would like to ask the Admiral one more question. The New England Coal and Coke Company has placed freely at your disposal all sources of information that you have asked for, so far as you know?

Admiral CAPPS. We received and acted on plans that were sent to the Bureau of Equipment, and we then sent these plans with the specifications and a letter of instruction to the superintending constructor at the works of the Fore River Shipbuilding Company, directing him to inspect the vessel and to see in what respects, if any, the vessel did not comply with the plans and specifications. This was necessary in order to make a report to the Department as to whether the vessel was well and properly built and a desirable type of vessel. The inspection was not made, however, with a view to determining the actual cost.

Mr. ROBERTS. But every source of information, as far as you know, has been freely offered?

Admiral CAPPS. I do not know of anything that was asked for that was not supplied.

Mr. PADGETT. With the fleet in the Pacific, is there any urgent need for these colliers on the Atlantic at the present time?

Admiral CAPPS. I would like to answer your question, Mr. Padgett, but it relates to a matter that is clearly under the direction of a bureau which has to provide coal and transportation for same, and I really would prefer, as that bureau has a representative here, to have it answered by him.

Mr. PADGETT. Who is that representative?

Admiral CAPPS. Commander Davis.

The CHAIRMAN. He was asked that, was he not?

Mr. PADGETT. I do not know.

The CHAIRMAN. Well, you may leave that question, and we will have Commander Davis come back presently.

Laying the subject of these particular colliers aside for the moment, I would like to ask a question or two regarding colliers generally for the Navy. As to colliers for expeditionary purposes, to go with the fleet, if the money is provided for their building, would it not be better to build larger colliers with a view, if they are going on far distant voyages (to the Orient, or wherever they may be sent) to having greater capacity than the ones which are now planned?

Admiral CAPPS. So far as concerns economy in transportation and the mere transportation of a given amount of coal, it would be distinctly more economical to have larger colliers.

The CHAIRMAN. That is not the point in my mind, though—

Admiral CAPPS. But the qualities which determine the best type of vessel for accompanying the fleet and coaling the fleet are not only ability to carry the coal at the necessary speed, but ability to rapidly transfer it to the vessels that need it; and I have been informed by various officers who have commanded ships that a large collier is much less effective in performing work of that kind than one of medium size. As a matter of fact, if you could get small colliers that could accompany the fleet at the speed desired they would be more desirable for coaling from the collier than the ones now under consideration.

The CHAIRMAN. Would it not be easier to get the speed required from a larger collier than from a smaller one?

Admiral CAPPS. Unquestionably.

The CHAIRMAN. Looking at it from—

Admiral CAPPS. Generally speaking, from an economical point of view the larger the capacity of the collier the less the cost of transportation of the coal; but from the point of view of efficiency of transfer of coal from collier to the battle ships, a procedure which might under certain conditions of war be vital, the smaller the vessel, within reasonable limits (say not less than 5,000 tons), the better off you are, assuming, of course, that you have the same *total amount* of coal in small colliers that you might otherwise have in large colliers.

The CHAIRMAN. But steaming 10,000 miles with a small cargo before delivering it, would not that more than offset the difference of speed for the moment in coaling?

Admiral CAPPS. I do not think I grasp the meaning of your question.

The CHAIRMAN. You are going, perhaps, across the Pacific.

Admiral CAPPS. Yes.

The CHAIRMAN. Five or six thousand tons would be a very small cargo to carry so far. To coal a fleet in the Orient would require a great many of those small colliers, would it not?

Admiral CAPPS. Yes. For a fleet of 16 battle ships it would require, roughly, 35,000 tons of coal to coal once, and if you have 5,000 tons in each collier, that would mean 7 colliers. These 7 colliers could, in smooth water, coal 14 battle ships at once, whereas with 10,000-ton colliers, even with a battle ship on each side, you would necessarily coal at only half the speed with which you could coal with these two 5,000-ton colliers. As a question of economy in transportation, however, it is absolutely true that the larger the vessel the more economically you can carry the cargo, especially if both are to proceed at high speed.

Mr. HOBSON. There is a point that is not clear to me, Mr. Chairman, and it bears on the question of the size of the collier. There

seems to be a similarity of expert opinion that it is easier to coal from a small than from a large collier. Please explain why that is. Is not a large one smoother and more steady as a platform? Do not its booms reach far enough to deliver it?

Admiral CAPPS. It is purely a question of the number of vessels you can get on each side.

Mr. HOBSON. I understand that you can coal but one at a time.

Admiral CAPPS. I assume that you can, under favorable conditions, coal two.

Mr. HOBSON. And the larger the collier the more likely it is that you can coal the two, is it not?

Admiral CAPPS. With smooth water one collier with effective hoisting apparatus, at least a collier especially designed, could probably coal one vessel on each side. You could not coal a greater number, considering the average-sized collier and the average-sized battle ship; but if you had 10,000 or 12,000 tons in the collier, and the bunkers of the vessels being coaled would hold only 2,000 tons, the two vessels would only take 4,000 tons, and then you would have two others come alongside, and then again two others, so that there would be delay. I have been personally so much inclined toward large colliers that tentative plans were made and I was prepared to recommend that in future collier construction we depart from the 5,000-ton type and go right up to 10,000 tons; but members of the Board of Construction who had been in command of battle ships informed me that in their experience even 5,000-ton colliers had proved much less efficient for coaling purposes than small ones, and gave as the reasons what I have just stated as the objectionable features of the very large collier.

Mr. HOBSON. Has the service ever had a collier of 10,000 tons capacity to coal from?

Admiral CAPPS. No.

Mr. HOBSON. Has the service ever tried to coal from both sides of a collier of 5,000 or 6,000 tons at the same time?

Admiral CAPPS. That I can not answer from personal knowledge.

Mr. HOBSON. Do I understand, then, that there is no material inferiority in the large collier to coal one ship as compared to the small colliers?

Admiral CAPPS. There is no material difference when coaling one vessel. If you had 30,000 tons of coal, however, in three 10,000-ton colliers, and the conditions of the sea were such that you could not afford to run the chance of crushing your collier by having a battle ship on each side, so that you could only coal one battle ship at a time, your 30,000 tons of coal would be tied up alongside of three vessels. If, on the other hand, you had six 5,000-ton colliers, of course six battle ships could be coaled at the same time.

Mr. HOBSON. May I put it in this way? Assume that this Government is able to provide the most efficient way of coaling its fleet at a distance; suppose that it is now time to make such provision; suppose that you have ten or fifteen or even twenty thousand ton colliers in the Philippine Islands, or elsewhere, in distant waters; suppose you could have ten of these large colliers there, or ten small colliers—an equal number. Would there or could there be any advantage in the small colliers?

Admiral CAPPS. If you are speaking of the same number of colliers, there would not be the slightest doubt in the world. You would take the same number of large colliers every time.

Mr. HOBSON. That is the point. I do not mean only as to quantity of coal, but I mean for coaling purposes.

Admiral CAPPS. Assuming the *same number* of colliers, the large collier has the advantage over the smaller vessel both in economy of transportation and less violent motion in coaling. If you are to have the *same number* of colliers, by all means select those with large capacity; but if you are limited to the *same amount of coal-carrying capacity*, then you get greater speed of coaling the fleet from the larger number of small colliers.

Mr. HOBSON. But suppose you can not get enough coal. You want all the coal you can get.

Admiral CAPPS. There is no excuse for taking small colliers if you can get an ample number of large ones.

The CHAIRMAN. Where you have a collier of 6,000 tons capacity, with 16 knots speed, that would require more fuel, of course?

Admiral CAPPS. A great deal more. Our "fleet colliers," for instance, will have three times the horsepower of these colliers under consideration.

The CHAIRMAN. And to make a voyage from the United States to the Orient and back they would come pretty near needing the whole cargo for fuel, would they not?

Admiral CAPPS. A large part, undoubtedly.

Mr. ROBERTS. Right in that connection I would like to ask Commander Davis this: I have heard it said that the *Sterling* was ordered to carry coal for the fleet to be delivered at a certain point down the coast, and that she came into port this side of the port of destination with all of her cargo burned up. Is there anything in that?

Commander DAVIS. When did that happen?

Mr. ROBERTS. Recently.

Commander DAVIS. I doubt that. The *Sterling* was——

Mr. ROBERTS. It was so reported in the papers, that she arrived with her cargo consumed in the boilers this side of the port of destination.

Commander DAVIS. I had not heard of that.

The CHAIRMAN. That was one of the gravest points in my mind when I asked regarding the large colliers, that for distant voyages there would be such a large consumption of the cargo for the boat itself that when it arrived at its destination it would not have sufficient for the fleet.

Admiral CAPPS. If Congress should undertake to supply ample coal-carrying capacity it would unquestionably be a great mistake not to embrace the opportunity to have large colliers.

Mr. ROBERTS. On this very topic of the size of colliers, I wanted to ask the admiral if there would be a limit, having in view the depth of water in our harbors, the narrowness of channels, and so on. To make a specific case, would it be feasible to build colliers to carry 20,000 tons of cargo? Could we get them in and out of the ports, and turn them in the channels?

Admiral CAPPS. Oh, yes; there are a great many vessels that ply across the Atlantic now, that, if they were built in collier form, would carry more than 20,000 tons; but, without having gone carefully

into the subject, it is a question in my mind whether high-speed colliers of 20,000 tons carrying capacity would not be too large for your purpose—too long, and too much draft for all but the best harbors.

Mr. ROBERTS. What would be the tonnage of a 10-knot collier that would carry that much coal?

Admiral CAPPS. The displacement would be beyond 30,000 tons.

Mr. ROBERTS. When you get up to 20,000 tons carrying capacity would you have to increase the draft materially, if it is in collier form?

Admiral CAPPS. It would probably not be increased beyond the deep-load draft of the largest battle ships now building.

Mr. ROBERTS. You could do it on that draft?

Admiral CAPPS. You could do that. You would have much greater length, however.

Mr. ROBERTS. You would have to give more beam?

Admiral CAPPS. Probably not, but greater length. I considered this matter of an increase in the size of colliers some time ago, with a view to recommending the construction of larger colliers, and 10,000-tons cargo capacity was about the amount I thought most desirable.

Mr. ROBERTS. On that point, did you go far enough in your investigations to consider the length and beam and draft of a vessel carrying 10,000 tons?

Admiral CAPPS. Certainly.

Mr. ROBERTS. What length did you figure you would have to have?

Admiral CAPPS. We can do with about 525 feet length.

Mr. ROBERTS. And what beam?

Admiral CAPPS. I do not recall now.

Mr. ROBERTS. In a general way, would it be substantially greater than a battle-ship beam?

Admiral CAPPS. Not as great as our largest battle ships.

Mr. PADGETT. I would like to ask a question, Admiral. Returning from the general discussion to the specific proposition before us in these boats, what would be the additional cost to equip these three boats with the necessary and proper hoisting and unloading machinery to fit them as colliers for receiving and loading coal? As I understand, in their present condition they are not equipped as they would be required to be equipped in the naval service.

Admiral CAPPS. Quite so, Mr. Padgett.

Mr. PADGETT. What would be a fair estimate of the additional cost for that equipment and for finishing them up to meet the needs of the Navy?

Admiral CAPPS. Please understand that the Navy Department, so far as I am concerned, has not considered these colliers at all, except as regards the information I have just given as to quality, etc.

Mr. PADGETT. I understand that, but are you prepared to give us some estimate?

Admiral CAPPS. Any figures that I gave you now would be an absolute snap-shot estimate, which would not have great value.

Mr. PADGETT. But it would give me some idea of the limits in which to guess.

Admiral CAPPS. I should say that we ought to be able to put efficient discharging apparatus on board for somewhere in the neighborhood of \$50,000.

Mr. PADGETT. Each?

Admiral CAPPS. Yes, sir; but when it comes to making appropriations I would like to give you something more definite than that.

Mr. PADGETT. I understand; but I am trying to get a rough idea of it, because it appears to me that there is something else beyond the purchase of them in their present condition.

Admiral CAPPS. Precisely.

Mr. ROBERTS. I would like to ask one question on that point. Would it be necessary for their naval use to have that discharging apparatus on them?

Admiral CAPPS. Yes, sir; particularly with a 7,000-ton collier. You ought to have apparatus to handle your coal as quickly as possible, in order to coal on each side.

Mr. ROBERTS. But they could go to coal depots without that apparatus, could they not?

Admiral CAPPS. They could easily handle their coal if the coal depot had apparatus for discharging. As I understand it, these colliers were intended to carry coal to a station at which they had discharging apparatus.

The CHAIRMAN. The *Ajax* and some of the similar colliers have discharging apparatus on board, I take it?

Admiral CAPPS. Only the ordinary winches and booms.

Mr. ROBERTS. You are speaking of special apparatus to do it quickly and economically?

Admiral CAPPS. Just as quickly as you can; to discharge them quickly.

Mr. ROBERTS. Is there some accepted apparatus for discharging a collier other than by her own power?

Admiral CAPPS. There are various types of coal-discharging apparatus in use, but none of them entirely satisfactory.

Mr. ROBERTS. But there are systems?

Admiral CAPPS. Yes; there are systems.

**STATEMENT OF COMMANDER HAROLD P. NORTON, U. S. NAVY,
BUREAU OF STEAM ENGINEERING.**

The CHAIRMAN. Please state your official position.

Commander NORTON. I am in charge of designing and drafting, Bureau of Steam Engineering.

The CHAIRMAN. Perhaps you would like to ask some questions, Mr. Hobson, relative to horsepower?

Mr. HOBSON. I would like to ask what Commander Norton regards as a fair and reasonable price or cost for machinery of the type in these colliers per horsepower.

Commander NORTON. It could be purchased, I think, at a contract price of \$50.

Mr. HOBSON. What would you think would be the price for the machinery on the basis of weight—price per ton?

Commander NORTON. We always state it by the estimated horsepower. We have to work it out. It is a matter of mental arithmetic; that is all.

Mr. ROBERTS. May I ask this: Has your Bureau examined, through any of its officers, this machinery?

Commander NORTON. I examined the specifications and drawings and all letters submitted.

Mr. ROBERTS. And as the result of your examination you are satisfied that the machinery is adequate for the needs of a vessel of that character?

Commander NORTON. Yes, sir; I think it is.

Mr. ROBERTS. And well constructed?

Commander NORTON. Yes, sir.

Mr. ROBERTS. It meets the approval of your Bureau?

Commander NORTON. For these colliers and machinery; yes, sir.

Mr. PADGETT. Have you ever been upon the ships themselves?

Commander NORTON. No, sir; they were not finished the last time I was at Fore River. I have merely seen the proposition submitted and the specifications they were built under, and the blueprints.

Mr. HOBSON. I would like to ask one question, if I can come back to it. These boats are contracted to have a speed of 10 knots?

Commander NORTON. At load draft.

Mr. HOBSON. Do you think it would be practicable to derive an appreciably higher speed from those engines if it were desired?

Commander NORTON. I understand they made a higher speed at a trial. I do not remember what it was, but I understand that they did do better.

Mr. HOBSON. What I mean is this: If they were starting out on a long voyage in an emergency, such as is liable to occur in the Navy, could you count upon a performance greater than 10 knots at deep-load conditions?

Commander NORTON. Yes, sir; I think you could.

Mr. HOBSON. How much, do you think?

Commander NORTON. It would not go above what they did on trial. Probably it would fall down.

The CHAIRMAN. With reasonable economy, you mean?

Mr. SKENTELBERY. They have made 11.7 knots.

Commander NORTON. But when you come to run a long voyage, it will fall away off, on account of the boilers getting dirty.

Mr. HOBSON. You say, Mr. Skentelbery, the average from Baltimore to Boston was 11.7 knots?

Mr. SKENTELBERY. Yes.

Mr. HOBSON. Was the vessel loaded deep on the basis of the contract for 10 knots?

Mr. SKENTELBERY. She had 7,226 tons of coal on her, and she has gone over 13 knots.

Mr. HOBSON. She must have had something with her that time.

The CHAIRMAN. Which boat made the largest number of knots?

Mr. SKENTELBERY. The *Everett*.

The CHAIRMAN. What is the average speed on all those trips, since she has been out?

Mr. SKENTELBERY. Over 10 knots—10½ knots.

Mr. HOBSON. That answers it, but I am trying to get at the availability of the collier for special naval purposes.

Mr. PADGETT. As I understand it, the Commander states that on a long voyage the conditions of the boiler and other sailing conditions would vary materially lessen what it would be on a trip from Baltimore to Boston.

Commander NORTON. You take a steamer running from this end of the world to the Orient and the boilers decrease in efficiency, as they get dirty. Probably you might have 10½ knots, but it would be good luck if you did.

Mr. ROBERTS. Right on that point I would like to ask this: Suppose one of these 16-knot cargo carriers makes 16 knots on her trial trip, and starts on an uninterrupted voyage to the Orient. Should she make the last thousand miles at the same speed as the first?

Commander NORTON. She could, because she has a blower to make up for the deficiency of the boilers.

Mr. ROBERTS. She has a forced draft?

Commander NORTON. Yes.

Mr. ROBERTS. But suppose she did not have?

Commander NORTON. Then she would fall off like the other. That is why it costs so much more than the ordinary collier. She is practically a man of war.

The CHAIRMAN. But it did have the ability to make 16 knots; she would not necessarily use it in the most economical use of coal.

Mr. ROBERTS. What is the ordinary cruising speed? Does it exceed 10 knots?

Mr. HOBSON. It is 10½ knots.

Mr. ROBERTS. These colliers could make that without question.

Commander NORTON. I have seen a battle ship make it from the Azores to New York at 14 knots.

Mr. ROBERTS. These vessels could not do that.

Commander NORTON. I have seen the *Kentucky* do that.

The CHAIRMAN. If you were going out under ordinary conditions and wished to make a long voyage, assuming that you had 16 knots ability, you would not use that full speed if you wished to handle the ship with economy, would you?

Commander NORTON. I should not, as an engineer; but the Admiral would have to determine the speed he wanted. From an engineering point of view I should say that I would go at an economical speed.

Mr. ROBERTS. For ordinary cruising purposes, except where they wanted to make a dash, these colliers could accompany the fleet as fleet colliers?

Commander NORTON. That depends entirely on what speed the Admiral wants. I think, from my observation of foreign ships, that the speed is going up decidedly. The cruising speed of foreign battle ships is going up all the time. Ten knots would be a low speed, and is not considered satisfactory at all.

Mr. HOPKINS. What would you regard as the most economical speed of the *Delaware* class?

Commander NORTON. About 16 knots, I should think.

Mr. ROBERTS. But when you take a fleet of *Delawares* and *Kearsarges* and your other ships, you have got to run your *Delawares* down to the speed of the lowest ship?

Commander NORTON. Why not bring the others up to the *Delaware*? They can do it.

Mr. ROBERTS. You can with the new ones, but not with old ones.

Commander NORTON. The others can make 14 knots under natural draft.

Mr. ROBERTS. But you have to run the *Delaware* down to 14 knots?

Commander NORTON. They can go above 14 knots, if they put the blowers on.

Mr. ROBERTS. For how long?

Commander NORTON. I have seen a ship run from Yokohama to Honolulu with her blowers working practically the whole distance—a battle ship.

Mr. ROBERTS. What speed did she make?

Commander NORTON. She made 12 knots, using her blowers. The others were under natural draft.

Mr. ROBERTS. That was her maximum speed?

Commander NORTON. No, sir; 14 knots was her maximum speed.

Mr. ROBERTS. There were several vessels that were faster?

Commander NORTON. Oh, yes. They made 12 knots, and she was the only one that had to use the blowers.

Mr. ROBERTS. And the speed of that one regulated the speed of the others?

Commander NORTON. But why build colliers with a speed suitable for vessels now in commission? Why not build them for what we are going to have?

Mr. ROBERTS. I am not speaking of the future, but what we have now.

Mr. PADGETT. Gentlemen, I intended to ask Admiral Capps a question, but I forgot it. He stated it would take 35,000 tons to load up 16 battle ships. How long, now, would that coaling last?

Commander NORTON. From seven to ten days, I should think. It depends on the rate of steaming.

Mr. PADGETT. About ten days?

Commander NORTON. About ten days. It depends on the rate of steaming.

Mr. LYONS. Does the committee desire any further information from Mr. Skentelbery? He has charge of the ships now.

The CHAIRMAN. I have no further questions.

Mr. HOBSON. I am satisfied.

Mr. PADGETT. If he has anything he wants to say, we will be glad to hear him.

Mr. ELLIS. Yes; if he wants to explain anything.

The CHAIRMAN. The members of the committee seem to be satisfied, so far as they are concerned, but if there is any statement that you would like to make before us we will be glad to hear you.

Mr. LYONS. We have detailed plans of the ships here. I do not know whether the committee would like to see them or not.

(Mr. Lyons thereupon explained the plans, informally.)

STATEMENT OF CHARLES SKENTELBERY.

Mr. LYONS. Mr. Skentelbery, what is the largest cargo you have had in any boat?

Mr. SKENTELBERY. Up to date, in the steamer *Malden*, 7,356 tons.

Mr. LYONS. Gross or net?

Mr. SKENTELBERY. That is, long tons.

Mr. LYONS. And what was the average cargo on all the trips you have made so far this year?

Mr. SKENTELBERY. About 7,220, I should say; over 7,200 every trip, with the exception of one voyage of the *Malden* with very light coal from Newport News. The ships have exceeded their contract requirements all the time they have been running.

Mr. ROBERTS. I would like to ask Mr. Brown this question, if he cares to answer it. I understood you to say that your company would not duplicate these ships for the New England Coal and Coke Company for the contract price of \$500,000.

Mr. BROWN. I think we could not do it.

Mr. ROBERTS. So that if the New England Coal and Coke Company dispose of the ships they have got to pay more than \$500,000 for ships to replace them?

Mr. BROWN. Yes.

Mr. ROBERTS. And they got these at the contract price of \$500,000?

Mr. BROWN. Yes.

Mr. ROBERTS. So that the New England Coal and Coke Company can not go and get the ships duplicated for the money they paid for these.

Mr. PADGETT. If there are no further matters before the committee, I move that the committee adjourn subject to the call of the chairman.

Mr. HOPKINS. I am ready to take action now, while we have the committee here.

The CHAIRMAN. We will go into executive session.

(The committee thereupon went into executive session and subsequently adjourned.)

[No. 20.]

APPROPRIATIONS AND EXPENDITURES FOR NAVY-YARDS.

NAVY DEPARTMENT,
Washington, December 19, 1907.

SIR: Agreeably to the request contained in your letter of the 18th instant, I herewith inclose for your information copies of two letters dated March 11, 1907, addressed to the Secretary of the Navy by Civil Engineer H. H. Rousseau, U. S. Navy, late Chief of the Bureau of Yards and Docks, expressing his views on the general subject of appropriations and expenditures for navy-yards.

Very respectfully,

V. H. METCALF,
Secretary.

HON. GEORGE EDMUND FOSS, M. C.,
House of Representatives, Washington, D. C.

BUREAU OF YARDS AND DOCKS,
March 11, 1907.

SIR: In connection with economy in administration and in all expenditures in the Navy, the Bureau has the honor to invite attention to some matters which it considers will greatly conduce to this end, as follows:

1. CHANGE FORM OF APPROPRIATIONS.

The form of appropriations for all Bureaus, for the same purpose, should be as uniform as practicable. They should be so worded as to limit expenditure of funds to one of the three general classes under which all expenditures are made by the system of bookkeeping in use, viz:

1. Ships.
2. Shore stations.
3. Miscellaneous.

The Bureau considers that possibly there is no greater need than that the expenditures under these three general classes be strictly defined. At present most of the large lump sum appropriations for all Bureaus can be spent under any or all of these three classes. In other words, Congress does not control how much shall be spent for ships, how much for shore stations, or how much for miscellaneous—that is entirely in the hands of the Bureaus. Last year, it may be stated, the expenditures under these three heads were as follows:

Ships.....	\$56,919,615.28
Shore stations.....	20,700,263.90
Miscellaneous.....	11,486,261.62
Total.....	89,106,160.80

It is not believed that Congress appreciates this, or the expenditures would before this have been limited.

2. UNIFORMITY IN ESTIMATES.

In order to determine the general channels of expenditure, it is believed that appropriations under all Bureaus should be classed generally under one of the four general heads:

Maintenance.

Repairs.

Contingent.

Increase of Navy afloat and ashore.

By "Maintenance" is meant the operating expenses of the Navy, afloat and ashore, including administrative expenses.

By "Repairs" is meant repairs both afloat and ashore to vessels, real estate, machinery plant, etc.

By "Contingent" is meant unforeseen and emergency objects of expenditure, and it is not believed that it is properly correct to charge routine or constantly recurring annual expenditures to "Contingent." Reference to any naval appropriation bill will show there is a wide divergence between different Bureaus in the various items of expenditure classed as "Contingent." The greater part of these items should be classed either under "Maintenance" or "Repairs."

"Increase of Navy afloat and ashore" refers to new vessels, and improvements to real estate. It would appear that considerable economy would be obtained by careful revision of the wording of the naval appropriation act and securing uniformity in the method of classifying objects of expenditure under all the Bureaus.

3. AGREEMENT BETWEEN FORMS OF APPROPRIATIONS AND EXPENDITURES.

At present appropriations are obtained under the different Bureaus' and expenditures under the various appropriations are classified in accordance with the Navy Regulations under certain ledger accounts called "Titles." The form of the appropriation does not limit or specify in general what title (or expenditure classification) it will come under.

The simplest and ideal condition would be to secure agreement between the classification of expenditures and the form of the appropriation. This would be entirely practicable and simple, and from a reading of the naval bill it would then be possible to study in advance just how much money was being appropriated for "Ships," how much for "Shore stations," how much for "Miscellaneous," and in addition the various classes of expenditure under the three heads would be known.

4. INTRODUCE SYSTEM OF COST KEEPING.

The Bureau, in previous communications, expressed its views on the value of an adequate system of cost keeping. It would result in great economy. No commercial establishment approximating the size of the naval establishment would consider that it could exist without such a system. It is not known just how such a system could lessen military efficiency.

The present system of bookkeeping in the Navy, as laid down in the Regulations, does not give any idea of the cost of the different

portions of the naval establishment, and the only published tables in regard to same are not intelligible except to an expert. It is believed it would be of great advantage to the Navy as a whole if the work it was doing was recorded on a cost-keeping basis.

As showing how deficient the Navy Department is at present in modern cost keeping, equipment, and system, the Bureau incloses herewith a circular, E 96-165, issued by the Department of Commerce and Labor, 1905, being a general schedule calling for certain information from manufacturing plants and which it is understood the Census Bureau is accustomed to obtain readily from manufacturers, being a statement of the principal expenses and items relating to manufacturers and production. When this simple schedule was forwarded to the navy-yards the method of keeping records then in effect was such that very little of the information required was at all obtainable, and that available involved very great labor in its preparation.

5. NAVY-YARD ADMINISTRATION.

Navy-yard administration at present is unduly expensive. As soon as a suitable cost-keeping system is installed, figures will easily show where retrenchment is practicable and necessary.

2. The Bureau attaches to this report a statement of expenditures at some of the larger navy-yards during the fiscal year ending June 30, 1906, which shows very clearly that there is room for improvement. These figures were furnished the Bureau through the courtesy of the Chief of the Bureau of Supplies and Accounts, and their preparation represents considerable labor.

3. Close personal and responsible supervision of expenditures, if nothing else, would make any change in the number of bureaus inadvisable, but it does not follow from this that navy-yard administration can not be simplified. In general the departments at navy-yards are as follows:

Department of general utilities—Yards and Docks.

Manufacturing and ship-repair departments—Construction and Repair, Steam Engineering, Ordnance, and Equipment.

Storekeeping department—Supplies and Accounts.

The Bureau of Medicine and Surgery usually has a dispensary where it also keeps the necessary medical supplies.

The Bureau of Navigation is not in general represented at any navy-yard by a department.

The departments of Yards and Docks and Supplies and Accounts are of the same general nature. Yards and Docks is in general a service department and furnishes general services to all departments.

The department of Supplies and Accounts is the general material department and furnishes materials and supplies needed by all other departments.

In the general theory of navy-yard organization the departments of Construction and Repair, Steam Engineering, Ordnance, and Equipment should be strictly and purely manufacturing and repair departments, each one having its own special work. If there is to be any simplification or consolidation in navy-yards it would seem logical at least to consider the consolidation of some or all of the manufacturing departments. What, if any, economy would be

secured by this would depend upon the special case in question and upon the results of a thorough examination and a study of the cost records of each department at the navy-yard. The result of any action not based upon study of costs would be more or less uncertain in its outcome.

6. CONSOLIDATION IN NAVY-YARDS.

The necessity of consolidation in navy-yards has been appreciated for many years. It has been only within two years, however, that power-plant consolidation in navy-yards has been approved, which, when completed, will be most beneficial and satisfactory.

The Bureau within a few days has had the honor to invite the Department's attention to the desirability of likewise consolidating all testing room and laboratory facilities.

It goes without question that there should also be only one foundry in a navy-yard. In time the consolidation of other shops can undoubtedly be taken up.

These consolidating projects should be taken up one at a time. For instance, if it is proposed at present to consolidate all machine shops this might, in most cases, mean abandoning all present machine shops and building one large new machine shop, which would entail a great expense and require a special appropriation from Congress. At present the Bureau believes that consolidation should only take place where it can be done without abandoning all buildings now in use.

One objection to consolidation of foundries that has been brought up is the expense and delay of transporting castings from the foundry to the different sometimes widely-separated departments. The proper remedy for this is an efficient system of transportation, similar to that in use in commercial establishments.

One objection that has been brought up in the past to consolidation of shops has been the military necessity of requiring in time of war emergency facilities. Consolidation, however, does not require any reduction in the total or necessary installation of machinery or tools, but the main purpose of consolidation of course is to do away with duplication of superintending force and other indirect charges which run up the operating expenses of navy-yards.

In connection with an efficient system of cost keeping, recommended hereinbefore, there should be an arrangement so that the direct and indirect charges of each shop can be compared with its output in order that the cost of production of each department in the navy-yard can be followed.

7. CONTROL OF EXPENDITURES.

At present there is nothing to prevent each Bureau from exercising its own discretion in increasing its machinery, plant, etc., at any navy-yard, and no doubt a large amount of duplication of machinery, plant, etc., is due to lack of consideration on the part of one department of facilities for performing necessary work already existing in another department. This could be remedied in the future by an order from the Department requiring that there be no further duplication of special tools, machinery, etc., without reference to the

Department, with a statement of the necessity. It is believed also that this matter would be remedied by the appointment at each navy-yard of a board on navy-yard operation, to consist of the commandant and representatives of the six working departments of the yard. All matters affecting increase of plant or distribution of work in the navy-yard to be referred to this board, whose recommendation would go directly to the Bureaus concerned.

The Bureau believes that it would be desirable to limit the employees of any one department to certain trades. At present any department can call in an employee under any trade, which naturally tends to duplication of work. The work performed by each department should also be more clearly defined in some respects than at present.

The approved system of having work for one department in a navy-yard done by another department offers the proper remedy to avoid duplication of plant and work. If the work so done on transfers is not satisfactory or performed promptly, the practical remedy would be, not to abolish the method of having work done on transfer, but to require the department performing the work on transfer to execute the work in an entirely satisfactory manner.

By modifying the Navy Regulations so as to require less work in the way of signing formal papers by the commandant, thus allowing him more time to personally supervise the manufacturing and other departments, the conduct of work it is believed will be much facilitated.

The monthly (or quarterly) report of expenditures as proposed by the Peters' Commission will prove a very valuable adjunct in this work.

The Bureau has the honor to recommend that the change in the form of appropriations be given consideration so that any change which may be approved can go into effect in the next estimates submitted to Congress.

The Bureau has the honor also to recommend that the Bureau of Supplies and Accounts be authorized to prepare a suitable system of cost keeping.

Very respectfully,

H. H. ROUSSEAU,
Chief of Bureau.

The SECRETARY OF THE NAVY.

DEPARTMENT OF THE NAVY,
BUREAU OF YARDS AND DOCKS,
Washington, D. C., March 11, 1907.

SIR: The Bureau has the honor to invite the Department's attention to the desirability of some changes in the present method of charging final expenditures of money and materials for the naval establishment under certain ledger accounts or titles, particular attention being invited to articles 1524 to 1528, inclusive, United States Navy Regulations, edition of 1905.

2. It is understood that the present system of classifying expenditures was established about fifteen years ago when the total annual expenditures for the naval establishment were less than one-quarter of what they are now. In addition, the tremendous growth of the

Navy has been accompanied by a corresponding increase in the various classes and items of expenditure resulting from the increase in the number and different classes of ships and the number and kinds of shore stations. Also certain items of expenditure which fifteen years ago were of small amount and could be classed as "Miscellaneous" under Title V, have largely increased and it is now inaccurate, to say the least, to classify as "Miscellaneous."

3. The Navy has not only outgrown some features of the present system of bookkeeping, but is also unprovided at present with its modern correlative—a well digested cost-keeping system. Reference is invited to the report to the President by the committee on department methods, entitled "Cost keeping in the Government service," as to what is meant. The changes in bookkeeping considered necessary are believed to be quite simple, and can be easily made, and the matter is taken up at this time from a belief that it is of prime importance in considering the future of the Navy, to have at hand necessary data in detail as to the cost of work which is now being done and which can be only ascertained from examining the record of expenditures under various classified heads. These figures in themselves would show in what direction, if any, change and retrenchment should take place, and will suggest the means of accomplishing it.

4. At present all general information regarding expenditures in the Navy Department is given in certain statements as required by the Navy Regulations and the existing system of bookkeeping, published annually with the report of the Paymaster-General. However complete these statements are, they are not aimed to cover the field of cost keeping, and in fact it is almost impossible to obtain from them full information in regard to the annual expenditures. All expenditures are finally charged under the three following general classes or heads:

Expenditures fiscal year 1906-7.

1. Ships.....	\$56,919,615.28
2. Shore stations.....	20,700,263.90
3. Contingent sundries (miscellaneous).....	11,486,281.62
Total.....	89,106,160.80

5. In the above amounts is included all material actually applied during the year. Material purchased and not used during the year is not included, also labor applied in manufacturing articles in navy-yards under "Title Z." In addition to the above three heads and the items mentioned in the preceding sentence, expense is incurred by the following two items:

1905-6.

1. Auditor's certificates (claims, judgments, etc.).....	\$915,682.43
2. Expenditures on account of Marine Corps.....	3,635,697.75
Total.....	4,551,380.18

6. The total expenditures for the Navy for last year, obtained by combining the above two summaries, amount to \$93,657,540.98.

7. The annual report of the Bureau of Supplies and Accounts contains an analysis of expenditures of money and material by titles. In this report for a few of the minor titles the expenditures of money are subdivided. For the ten most important titles, comprising nearly 90 per cent of all expenditures, no subdivision is made.

SHIPS.

The following titles, or ledger accounts, are now in use, and the expenditures under them for the last fiscal year as given are:

Title A. Cost of construction of vessels.....	\$31,764,556.58
Title D. Repairs to vessels.....	5,381,489.86
Title P. Repairs to equipage of ships.....	168,819.15
Title O. Cost of commission.....	19,604,749.69
Total.....	56,919,615.28

8. It is recommended that in order to more clearly follow and understand the expenditures on account of ships, expenditures under each of the above four titles be combined under the following subheads:

1. Battle ships.
2. Torpedo vessels, including destroyers and submarines.
3. All other vessels.

Also that repairs to ships, "Title D," be divided into two classes:

- (a) Repairs made within the continental limits of the United States.
- (b) All other repairs.

SHORE STATIONS.

9. At present expenditures at all shore stations are grouped under three titles, and the expenditures for the last fiscal year were as follows:

Title E. Expenditures for improvements of real estate and for chattels.	\$8,146,142.78
Title F. Expenditures for improvements to power plants, purchase of machinery and tools.....	1,443,040.31
Title G. General maintenance; operating expenses of shore stations, including pay of officers.....	11,111,080.81
Total.....	20,700,263.9

This does not give the total expenses of shore stations, however, and is misleading to some extent, for under Title V, "Miscellaneous," under "Contingent sundries," there is an item of \$1,295,040.68 for miscellaneous labor at navy-yards, pay for holidays, leave, etc., for the last fiscal year. This should be corrected hereafter so that all expenditures on account of shore stations, whether direct or indirect (as for leave pay), should be included under "Title G," in order to give the total expenditures on account of shore stations. By the present method of publishing expenditures in the statement of expenditures of money (pp. 11 and 12, Paymaster-General's Annual Report, 1906), material is not included in the account of ships, shore stations, and contingent sundries. Likewise the recapitulation of money and material at shore stations (p. 23, Paymaster-General's Annual Report, 1906) does not include pay of officers attached to the stations under "Title G." Under statement of expenditures of money and material, "Title G," General maintenance (p. 19, Paymaster-General's Annual Report, 1906), the expenditures are not classified under the different bureaus.

10. It is believed that expenditures under titles "E," "F," and "G" should be subdivided in the annual reports so as to show expenditures each year for the following shore stations separately:

1. Navy-yards and naval stations within the continental limits of the United States.
2. Insular navy-yards and naval stations.
3. Naval training stations.
4. Magazines.
5. Home hospitals and Naval Home.
6. Hospitals in insular possessions.
7. Home coal depots.
8. All other coal depots.
9. Wireless-telegraph stations not at yards and stations.
10. Manufacturing plants: Washington Navy-Yard, Indian Head, torpedo station, etc.
11. Naval Academy, Naval Observatory, and War College.

11. A division of expenditures for shore stations, as above indicated, the Bureau considers to be urgently necessary for intelligent comprehension and examination of expenditures. In revising the present system the Bureau also believes the total expenditures on account of the following different offices should be classed separately under appropriate titles:

1. Branch hydrographic offices.
2. Recruiting offices.
3. Inspection offices not at yards or stations, in all expenses on account of inspection of ships, material, etc.

The expenses covered by the above three headings are of course included now in some title total. They should, however, be given separately.

12. It is only by the method given generally above (to be properly worked out in detail) that the present cost of our numerous shore stations can be put in shape to be grasped.

ACCOUNT CONTINGENT SUNDRIES.

13. This account comprises all expenditures not included hereinbefore under the two headings "Ships," of the Navy afloat, and "Shore stations," or the naval establishment ashore, as follows:

Title H—Personnel unassigned.—Includes pay of retired officers, also expenses of receiving ships at various navy-yards and training stations. Last year this expenditure was \$5,139,342.00.

Title I.—This embraces pay of officers on duty at the Navy Department and dependencies, etc. It also includes officers on inspection duty for the construction of ships, etc.

It is understood that under "Title A" (cost of construction of ships) no indirect labor or material charges such as inspection have in the past been included. If this is correct it is the more necessary that the expenses of the inspection offices be given separately (as recommended hereinbefore), which, when added to the pay of officers under "Title I," would give the total expense of new construction, including inspection. Last year the total expenditure of money under this title amounted to \$1,358,096.20.

Title N—Models and experiments.—Inasmuch as the greater part of if not all expenditures under "Title N" are made at navy-yards and naval stations there is reason that this expense should be classed separately under the expense account of either "Ships" or "Shore stations," or divided between them, depending on the purpose. It amounted last year to \$498,520.09, and it is not believed necessary or desirable that it should be longer continued as a "Miscellaneous or contingent sundry" expenditure.

Title K.—Pay of officers and men serving in the Coast and Geodetic Survey is no longer used and should be abolished.

Title V.—Miscellaneous.—Expenditures under this head amounted last year to \$4,041,437.96. The largest item is "Miscellaneous labor at navy-yards, pay for holidays, leave, etc.," \$1,295,040.18. This portion of "Title V" should clearly be taken out of "Miscellaneous" and charged against the different "Shore stations."

14. In addition, "Miscellaneous expenses" are listed as \$461,130.78. It is believed that these miscellaneous expenses should be divided properly among the three following heads:

1. On account of ships.
2. On account of shore stations.
3. On account of Navy Department.

15. It is also believed that the charges under "Title V" of advertising and freight, amounting to \$510,414.98, should be likewise divided properly between "Ships," "Shore stations," and "Navy Department."

16. It is recommended that consideration be given to establishing a new title under which to charge all expenditures on account of the Navy Department and its appendages, so as to segregate all administrative expenses.

17. Purchases for fuel for offices amounted last year to \$45,822.26. This expenditure should be so divided as to show which is chargeable against offices at shore stations, at the Navy Department, etc.

18. The expenditures for account of Marine Corps are given in the Bureau of Supplies and Accounts' analysis of annual expenditures in a single lump sum of \$3,635,697.75. This lump sum should likewise be divided suitably under headings corresponding to the ledger accounts of naval expenditures, so that the total expenditures of the Marine Corps on account of "Ships," being cost of the marine guard aboard ships, can be ascertained; likewise the cost of the marine guard at shore stations should be segregated. In the past, it is understood, that the cost of ships in commission given in the table included cost of marine guard. It is not known whether the cost of shore stations likewise included the marine guard.

19. This is intended only as a general discussion of this matter. It is not the purpose in any way to criticise the present method of keeping accounts, which is done in accordance with the Regulations. It is believed proper, however, to point out the desirability, in view of the vastly great expenditure of funds and the necessity of closer economy, of more closely subdividing expenditures than is done at present, so that the general policy of the Department in determining the future growth of the Navy can be better determined.

20. It seems reasonable to assume that for the present at least, funds available for expenditure by the naval establishment will

not exceed \$100,000,000 per annum. The expenditure of this \$100,000,000 so as to secure the greatest benefits to the Navy and to the country is a matter of the greatest importance and which requires careful consideration and full information.

21. If the above general views are approved by the Department, it is respectfully recommended that the Bureau of Supplies and Accounts, which is charged under the Regulations to keep the property and ledger accounts, be authorized to submit as soon as practicable a list of ledger accounts revised to meet the present needs and amplified so as to secure the segregation of expenditures recommended generally hereinbefore, and so that same can go into effect, after receiving the Department's approval, at the beginning of the next fiscal year.

22. It is further recommended that the Bureau of Supplies and Accounts be authorized to modify, so far as may be necessary, the present method of general bookkeeping, so as to cover and embrace a satisfactory cost-keeping system which will enable the Department to keep at all times informed on annual expenditures.

Very respectfully,

H. H. ROUSSEAU,
Chief of Bureau.

THE SECRETARY OF THE NAVY.

(One inclosure; copy of last annual report of Paymaster-General.)

[No. 21.]

**EXTRACT FROM REPORT OF BOARD ON COMPARATIVE TRIALS
OF SUBMARINES AND SUBSURFACE BOATS, SUBMITTED UNDER
DATE OF MAY 31, 1907.**

The Board, having read over and corrected the record for smooth copy, proceeded to deliberate and reports as follows:

RESULTS BY COMPARISON.

Taking the various paragraphs of the schedule laid down by the Department successively.

SPEED TRIALS.

Condition.	Motive power.	Maximum speeds.	
		Lake.	Octopus.
		<i>Knots.</i>	<i>Knots.</i>
Light.....	Engines and motors.....	8.47	.....
Do.....	Engines only.....	7.50	11.02
Awash.....	Engines and motors.....	7.46	.....
Do.....	Motors only.....	.....	10.00
Submerged.....	do.....	5.65	9.93
Light, under one screw.....	One engine only (starboard).....	.....	7.92
Light.....	Running with one engine and charging batteries from same shaft.....	.....	7.29
Do.....	Using both engines and charging with both motors.....	6.17	.....

Remarks.—The *Octopus* showed a marked superiority in speed under all conditions. The representative for the *Lake* informed the Board officially that his vessel had not been built for speed, but that he could carry out all proposals made to the Government, which were opened April 30, 1907.

TURNING TRIALS—MANEUVERING POWER.

Condition.	Motive power.	Degrees of circle.	Lake.		Octopus.	
			Tactical diameter.	Time.	Tactical diameter.	Time.
			<i>Yards.</i>	<i>M. S.</i>	<i>Yards.</i>	<i>M. S.</i>
Light.....	Engines only.....	360	176	2 26	236	3 19
Awash.....	Motors only.....	360	118	4 10	146	3 38
Submerged.....	do.....	360	112	3 29	133	2 06
Light.....	One screw only, helm with screw.....	180	125	1 06	160	1 34
Do.....	One screw only, helm against screw.....	180	179	1 30	260	2 38
Do.....	Ahead one screw, backing the other.....	180	143	1 32	195	1 29

REVERSING TRIALS.

Condition.	Motive power.	Time to stop.	
		Lake.	Octopus.
		<i>M. S.</i>	<i>M. S.</i>
Light.....	Engines only, ahead with engines and backing with motors.....	0 47	0 40
Awash.....	Motors only.....	0 53	0 53
Submerged.....	do.....	0 40	.....
Light.....	Engines only, backing by reversing screw blades.....	1 03	.....

Remarks.—Exact determination of the tactical diameters under the conditions of the trials were difficult, but the preceding figures are believed to be reliable for comparative purposes.

The *Lake* with less length turned in a smaller circle than the *Octopus* in all conditions.

The *Octopus*, owing to her greater speed, turned in less time when submerged, in spite of her larger circle.

Both boats turned in a smaller circle when awash and submerged than when light. When turning awash both boats were trimmed well by the stern so that the water had almost as free a passage over the after portion as when submerged. There is little choice between the boats as regards horizontal maneuvering power.

SUBMERGING.

Starting with the vessel at cruising speed, to pass to the submerged condition, including sealing the boat and trimming for diving, required in the case of the *Lake*, 7 minutes and 19 seconds, and in the case of the *Octopus*, 4 minutes and 45 seconds.

The time required to come to the surface from a depth of 30 feet and to return to that depth was, in the case of the *Lake*, 1 minute and 2 seconds, and in the case of the *Octopus*, 40 seconds.

The maximum slant down in performing this evolution was 12° in the case of the *Lake* and 11° in the case of the *Octopus*.

The Board observed with great care the behavior of the two boats when submerging and running submerged with reference to the important question of change of trim and the control of level. At no time did the *Lake* submerge upon an even keel. To get her under water it was necessary to raise her stern with the diving rudder and allow her to go down at an angle as in the case of the *Octopus*. The control of level and of trim under water was distinctly superior on the part of the *Octopus*. The hydroplanes of the *Lake* were not used to submerge her, but were set to the angle considered desirable by the operator before submergence, and vertical control under water was obtained entirely by the use of the horizontal rudder. During the submerged speed trial and the submerging trials, the forward pair of hydroplanes had been removed entirely.

The large, flat superstructure deck of the *Lake* is considered objectionable, for the reason that it renders the control of the vessel when she is submerged much more difficult as soon as she departs from the even-keel position. The fact that the diving rudder, periscope, and hydroplanes are all handled in the conning tower by one and the same man is also considered objectionable and dangerous, it being advisable to have at least the diving rudder and periscope worked by different persons. In the *Octopus* the man at the diving rudder has a comfortable station and can do his work thoroughly and without distraction, which is not possible for the man in the *Lake* under the present arrangement.

It was noted during these experiments that the crew of the *Lake* was not as well trained as the crew of the *Octopus*.

SEA TRIALS.

There was no marked difference in the behavior of the boats in a seaway.

TORPEDO FIRING.

Owing to the short-range torpedoes supplied by the station, it was necessary to modify the paragraph of the schedule and shorten the range. Neither vessel showed any marked superiority over the other one in firing the torpedoes.

The fact that the *Lake* can close her bow torpedo tubes separately, while the *Octopus* can not, is a mark of greater efficiency in the former.

MINING AND COUNTERMINING.

The *Octopus* is not prepared to do either mining or countermining.

The hatches provided on the *Lake* will not admit of handling from that vessel the present service mine or counter mine, but could probably handle a mine of smaller diameter, the bottom hatch being 27 by 30 inches, but the *Lake*, by the use of the diving chamber and bottom hatch, in connection with the grapnel and winch, is very well equipped for picking up and cutting cable, or for "creeping" and searching the bottom.

The facilities for receiving torpedoes on board before firing them are substantially equal on both boats, but the *Octopus* is not fitted for picking up torpedoes and striking them below after they have been fired, or taking through the tube from the outside, both of which the *Lake* can do.

The appliances for loading torpedoes are superior on board the *Octopus*.

STRENGTH AND WORKMANSHIP.

As regards the main structure, the workmanship on each boat is regarded as excellent. As regards fittings, these are more numerous on the *Octopus* than on the *Lake*, and have a higher finish.

The *Lake* was submerged to the bottom in Narragansett Bay to a depth of 125 feet from the surface of the water to the axis of the boat without sign of strain. The owners had made all arrangements to submerge the *Octopus* to a depth of 200 feet, but were prevented by the weather, within the limit of time. Neither boat complied with the requirements of the schedule.

PLANS AND SPECIFICATIONS.

The metacentric height of the *Lake* in the light condition was 13 inches, and of the *Octopus* $7\frac{1}{4}$ inches, as determined by experiment. In the awash condition, as determined by experiment, the metacentric height of the *Lake* was $7\frac{3}{4}$ inches, and of the *Octopus* 13.6 inches. The metacentric height in the submerged condition can be closely estimated from the results in the awash condition. It would be for the *Octopus* practically the same as in the experimental awash condition, or about $13\frac{3}{4}$ inches. For the *Lake*, with fuel tanks full, the metacentric height, submerged, would be about 8 inches, and with the fuel tanks empty about 10 inches. The *Octopus* has a distinct superiority over the *Lake* as regards submerged stability in that she is not only larger, but has a greater metacentric height in the submerged condition.

ENDURANCE TRIALS.

The *Lake* has fuel capacity for 1,500 gallons of gasoline; the *Octopus* for 3,890 gallons. From the experiments made by the Board, the radius of action of the *Lake*, running light at a cruising speed of $7\frac{1}{4}$ knots, would be 395 miles. The endurance of the *Octopus* at a cruising speed of 9.35 knots would be 680 miles.

The ampere-hour capacity of the battery of the *Lake* for a 5-hour rate of discharge was determined to be 3,475 while running on the surface. The ampere-hour capacity of the *Octopus* battery at a 4-hour rate of discharge was determined to be 2,827 while running on the surface. Owing, however, to the fact that the *Octopus* has 120 cells as against 60 on the *Lake*, her stored electrical energy is nearly double that of the *Lake*. On account of the variation of available electrical energy with rate of discharge the submerged endurance under various conditions can be estimated only.

The Board estimates the submerged endurance of the *Lake* at her full speed of 5.65 knots to be about 17 knots. The submerged endurance of the *Octopus* at her full speed of 9.93 knots is estimated at 24 knots.

Using the batteries in parallel, the submerged speed of the *Octopus* was 6.37 knots, and her endurance in this condition would be about 60 knots.

The above estimates of endurance are based upon comparatively short runs and might be somewhat modified by long-distance trials, but there is no question that the *Octopus* has marked superiority as regards endurance.

HABITABILITY.

The free air spaces in the *Octopus* and *Lake* are in the ratio of 44 to 35, which is the proper proportion for the relative sizes of the boats.

The storage capacity of air in the *Octopus* is 73 cubic feet at a pressure of 2,500 pounds per gauge, and that in the *Lake* about 43 cubic feet at 1,500 pounds.

This makes the amount in the *Octopus* about three times that in the *Lake*; but the *Lake's* working crew is 8 while the *Octopus* carries 14.

Judging from the above and the required examinations made, there is no choice between the vessels as to habitability; both are satisfactory.

INSPECTION.

Ground tackle.—There is no difference in the efficiency of the ground tackle.

Facilities for emergency sealing.—The facilities in the two boats in this respect are equal, being an additional hatch at the base of the conning tower.

Steering apparatus.—The electric steering gear of the *Octopus*, with shaft connections, which is fitted in addition to the hand gear, is a distinct advantage over the wheel and rope arrangement of the *Lake*.

For the diving rudder, the shaft and sprocket gear of the *Octopus*, easily worked, is very superior to the stiff and badly led rope arrangement of the *Lake*, and the location for handling the same is much better in the *Octopus*.

Interior and exterior communications.—The interior communications in the two boats are practically equal.

For exterior communication, the *Octopus* has the submarine signal system, can receive wireless messages up to about 30 miles, and is fitted with a night signal service.

The *Lake* has a telephone system which can be used in inshore waters and where a cable can be picked up and connected. She also has a buoy which can be sent up to the surface and telephone communication established. The telephone wire in this case is surrounded by a stiff rubber hose through which air can be procured.

The arrangement as installed in the *Octopus* is superior for military purposes to that used by the *Lake*.

Facilities for observation.—There is no marked superiority in this respect in either boat, although the periscope used in the *Lake* on the trials was too short, while the omniscope used on that vessel has a superiority by giving an all-around view.

Accessibility and simplicity of valves.—In this respect the *Octopus* is superior.

Ventilation under all conditions.—The system used in each boat is satisfactory, but that in the *Octopus* is more comprehensive and is deemed preferable.

Efficiency and protection of storage batteries.—There is no practical difference between the types of storage batteries as regards efficiency. The cell construction of the *Lake* is better protected against accidental entrance of foreign matter. The stored energy of the *Octopus* is practically double that of the *Lake*.

Condition and efficiency of pumps.—The pumps of the *Octopus* are superior in arrangement and efficiency, especially when hand power is required.

Air compressors.—Both compressors worked satisfactorily, but the *Octopus* has the advantage of a duplicate compressor, while the *Lake* has an auxiliary one fitted for moderate pressure only.

Facilities for handling water ballast.—The facilities in the *Octopus*, while more comprehensive and complex than in the *Lake*, are superior and more efficient.

Safety of fuel supply.—The fuel supply of the *Octopus* is carried in a tank located in the forward end of the boat (adjacent to the ballast tanks), which is remote from danger of rupture and easy of control.

The fuel supply of the *Lake* is carried in 12 tanks, located in the superstructure, connected by an elaborate system of pipes through the hull structure and in close proximity to the compressed-air flasks and their piping.

The safety of fuel supply in the *Octopus* is considered much greater than that in the *Lake*.

Regarding this superstructure in which not only the fuel supply but air flasks and adjusting tanks are stowed, it is important to note that it is constructed of wood, with steel frames, and a slight collision might disable everything inside of it. These numerous fittings in the superstructure are very inaccessible and their care and preservation, as well as that of the hull proper in their vicinity, is very difficult.

Reliability of instruments.—The instruments were tested with satisfactory results.

MEANS OF ESCAPE.

The diving helmets of either boat did not give any satisfactory demonstration.

The diving chamber of the *Lake* as a means of escape is considered superior to the arrangement of compartments in the upper part of the *Octopus* intended to facilitate escape from the boat.

OPINION.

It is the unanimous opinion of this Board that the *Octopus* is the superior boat presented for tests, and furthermore that she is equal to the best boat now owned by the United States and under contract.

The Board is also of the opinion that a boat generally similar to the *Octopus*, but larger, would be a superior naval weapon.

SUBSURFACE BOAT.

The subsurface boat can not be compared with submarine boats, being of an entirely different type, but could be considered in the class of torpedo boats or destroyers if built of sufficient size; yet, in the absence of a regular subsurface boat, there being but a quarter size model, it was impossible to make a satisfactory comparison with any class of vessels. From what the Board observed of the speed and maneuvering abilities of the model, there is no reason to doubt that guarantees made in these respects can be carried out.

It may also be conceded that a subsurface boat, as compared to a torpedo boat, has less vulnerability, requires less men, and has a larger steaming radius, but she has less speed and greater draft.

The representative of the subsurface boat informed the Board that he proposed to submit bids for both larger and smaller boats of that type than the 140-foot boat.

A. MARIX,
Captain, U. S. N., President of Board.
 D. W. TAYLOR,
Naval Constructor, U. S. N., Member.
 B. T. WALLING,
Commander, U. S. N., Member.
 W. STROTHER SMITH,
Lieutenant-Commander, U. S. N., Member.
 JOHN W. TIMMONS,
Lieutenant, U. S. N., Member and Recorder.

EXTRACT FROM SUPPLEMENTAL REPORT OF BOARD ON SUBMARINES, SUBMITTED UNDER DATE OF JULY 2, 1907.

The Board reports as follows:

1. That the *type* of submarine boat as represented by the *Lake* is, in the opinion of the Board, inferior to the *type* as represented by the *Octopus*.

2. The closed superstructure of the *Lake*, with the large flat deck, which is fitted to carry water ballast, and to contain fuel tanks and air flasks, which is an essential feature of the *Lake* boat presented

to us for trial, is inferior to the arrangements on board the *Octopus* for the same purposes, and also is, in the opinion of the Board, detrimental to the proper control of the boat.

3. The hydroplanes, also an essential feature of the *Lake* boat presented to us for trial, were incapable of submerging the boat on an even keel. They are therefore regarded as an objectionable encumbrance.

4. The Board is of the opinion that the tests of the subsurface boat model did not develop that boats of this type, built of a size suitable to render their qualities available, are equal to the best torpedo boat now owned by the Government.

D. W. TAYLOR,
Naval Constructor, U. S. N.,
Member.

B. T. WALLING,
Commander, U. S. N.,
Member.

W. STROTHER SMITH,
Lieut. Comdr., U. S. N.,
Member.

JOHN W. TIMMONS,
Lieutenant, U. S. N.,
Member and Recorder.

I agree with the opinions expressed by the other members of the Board, in paragraphs 1, 2, and 3.

Paragraph 4. Subsurface boats.—In my opinion the smallest size of subsurface boat proposed by the company in their additional bids, fitted with a regular torpedo tube and able to make a speed of fifteen knots, would be a weapon of great value, additional to any now owned by the Government; and this value would be enhanced by the rapidity with which they could be constructed and the ease with which they could be transported.

A. MARIX,
Captain, U. S. Navy, President of the Board.

[No. 22.]

STATEMENT OF W. S. ISHAM.

NAVAL AFFAIRS COMMITTEE,
House of Representatives.

GENTLEMEN: A pugilist's success does not depend upon the blow he can withstand, but upon the blow he can deliver upon an adversary. The same truism applies to the fortress with its walls and moats and to the battle ship with its armored turrets and belt line. Reuterdaahl, in the January number of McClure's, has shown by an overwhelming array of admitted facts that our battle ships are incapable of withstanding the blows delivered in actual battle because of inherent defects. In this presentation one of the objects will be to attract attention to the fact that they are likewise incapable of delivering destructive blows upon an enemy because of defects in armament.

It is evident to anyone that if our battle ships can not deliver destructive blows with thier heaviest guns at fighting range they are not efficient fighting machines, any more than was the armored and mounted knight of old without a lance, sword, or battle-ax, and any increase in the number of such ships adds nothing to the strength of our Navy. Hence, appropriations for such ships are wasted unless means are found for making the guns effective, which exposition of means is another object of this presentation.

Nearly ten years ago I began the contention before the War Department that thick armor could not be penetrated by service projectiles at fighting range. A little later Capt. I. N. Lewis, a brilliant artillery officer, proved to the satisfaction of the appropriation committee that such penetration was absolutely impossible. Yet notwithstanding this no actual test of penetration against armor at fighting ranges has ever been made up to the present time, and each year's recommendations calls for enormous sums of money to be disbursed in trying to bolster up an exploded theory which should have been disposed of years ago by a simple test. The question at issue is simple. The minimum fighting range of battle ships is 5,000 yards, fixed by the range at which they may be destroyed by the enemy's torpedoes. Now can our large guns at such ranges penetrate the 12-inch kruppized armor protecting the vitals of modern battle ships? If not, the public and Congress have been misinformed and about \$200,000,000 of public treasure has been wasted on worthless constructions. The opinions of practically all progressive officers has always been that such penetration could not be secured, and that the matter should be tested.

Moreover, the reports on the effects of gun fire in the Russo-Japanese war shows that penetration of thick armor was not secured in a single instance, although hundreds of hits were scored, but that the sinking of Russian ships was due to their being overloaded with coal bringing down their armor belts and protective decks below the

water line, causing them to sink whenever their thin armor was penetrated, a defect which is criticised at length in the article referred to by Reuterdahl.

I understand, moreover, that testimony has already been taken before this committee which shows that penetration has never been secured at 5,000 yards. In other words, our battle ships are constructed upon a supposition of penetration rather than upon a fact.

I believe you will order a test to be made at once, as delineated in section 1 of attached bill, and as no officer of reputation has the least hope that armor plate can be penetrated at such range, it would seem advisable to forestall the result, allay the alarm, and mitigate the blame by presenting at the same time to the country a means for giving the gun not merely a temporary but a decided and permanent advantage over armor plate, and fix the requirements of future battle ships without further loss. It is submitted that such a means is furnished by the employment of outside explosive shell. This is not the time or place to discuss or decide the merits of any particular shell, but it is preeminently the time and place to decide in favor of a test of the system as requested in section 2 of the attached bill. The advantages claimed for outside explosive shell are so numerous and so pronounced that a recital of a few of the more important of these would seem sufficient to insure the immediate adoption of some shell of this class if the welfare of the nation is to be the deciding factor.

First. Such shell striking a ship will destroy by concussion and noxious fumes all life whether in turrets or conning towers and however well protected, as has been proven with small charges of explosive gelatin which effected the destruction of chickens placed behind protecting embankments at certain distances from the explosion.

Second. Such shell will destroy any ship afloat upon exploding in the water within a distance of 50 feet from such ship. This claim is based upon accepted data derived from tests and employed in the fixing of the location of contact and observation mines.

Third. These shell, it is claimed, will blow in the side of a battle ship; but as this has not been established conclusively by tests already made, it is desired that it be proven by a test against the *Texas*, which is the object of the present presentation of facts.

Fourth. The life of the guns will not be impaired by long-continued firing at the lesser pressure which may be employed with such shell, because effect is not dependent upon velocity, as is the case with armor-piercing shell.

Moreover, it is also a fact that the life of the 12-inch guns now employed on all our ships is only about 60 shots when using the high pressures necessary for penetration of armor at moderate ranges and within the fighting range. And since these 60 shots per gun may be fired in an engagement lasting less than two hours it is evident that in that time such ships may put themselves out of action and become not only inefficient but also a burden to a fleet until new guns are placed in their turrets, a work requiring months of valuable time in shipyards sorely needed in time of war for other work. Hence the importance of shell which permit the use of lesser gun pressures and give an indefinite life to the guns, and consequently to the ships which carry them.

There is yet a deeper question growing out of this change in projectiles which involves the construction of the ship and even her tactical and strategical employment.

It is an old and homely saying, yet nevertheless forcible and recognized axiom, that "It is the longest pole that knocks the persimmon." This applies in particular to warfare, and outside explosive shell give this great advantage to the ship employing them, if the ship through superior speed is enabled to select her own point of attack outside the range of the enemy's guns yet within that where her own may be effectively employed.

Now, while it has not been attempted to show all of the advantages accruing through the use of shell for outside explosive effect, it is believed that the presentation has been sufficiently strong to warrant the fullest test to be made and regardless of cost. A precedent for such a test is to be found in nearly every country having a navy. For example, England completely destroyed and rebuilt and redestroyed and rebuilt the battle ship *Belle Isle* to determine the effect of shell and torpedoes upon such ship, and recently fired for three days at the battle ship *Hero* for further determination of the effect of armor-piercing shell. We destroy by test one armor plate out of each lot received. We do the same with projectiles and powder, using up in this way each year materials worth many times the possible cost of this test. Shall we then leave this more important test unmade because of any false ideas of economy?

RÉSUMÉ.

1. The minimum battle range of to-day is 5,000 yards, fixed by the destructive range of the modern torpedo.
2. Our ships are constructed and equipped on the hypothesis that penetration of heavy armor at battle ranges can be secured.
3. Heavy armor has never been penetrated at an actual range of 5,000 yards, either on the proving ground or in battle.
4. Consequently there is an issue between the hypothesis and the results heretofore actually accomplished. This issue should be settled immediately by tests such as suggested in section 1 of the attached bill.
5. If a fair and conclusive test demonstrates that penetration of heavy armor at battle ranges is impossible, our Navy and coast defenses are useless, unless some means can be obtained for destroying an enemy at a range materially greater than the torpedo range.
6. Outside explosive shell are the only means which can increase the destructive range of the gun up to its limit and keep pace with increase in thickness of armor and improvements in the same, which are continually being made.
7. Consequently tests should be made as indicated in section 2 of the proposed bill with a view of determining from the effect the requirements of such shell to accomplish any desired result.

ITEM.

SEC. 1. The Secretary of Navy is hereby authorized and directed to test a twelve inch Kruppized armor plate properly backed by firing against it a twelve-inch armor-piercing projectile employing service charges from an actual distance of five thousand yards.

SEC. 2. The Secretary of Navy is hereby further authorized and directed in case the previous test demonstrates that heavy armor plate can not be penetrated at battle ranges, to test two outside high explosive shell containing the highest practicable charge of the most powerful explosive ever fired from a gun, by firing one against either of the turrets and the other against the belt armor amidship of the battle ship *Texas* at velocities to simulate a range of ten miles, such ship to be anchored in shallow water with water-tight compartments closed and having domestic animals located aboardship at different points to determine, in addition to the destructive effect of the shell upon the ship, its probable effect upon the personnel.

SEC. 3. The sum of fifty thousand dollars, or as much thereof as may be necessary, is hereby appropriated from the moneys in the Treasury not otherwise appropriated for the foregoing purposes and the remainder will be available for such other tests as may seem advisable to the Secretary of the Navy.

Respectfully,

WILLARD S. ISHAM.

[No. 23.]

COMMITTEE ON NAVAL AFFAIRS.

(Subcommittee No. 6.)

**House of Representatives,
Washington, D. C., February 13, 1908.**

The subcommittee met this day at 11 o'clock a. m., Hon. Sydney E. Mudd (chairman) presiding.

**STATEMENTS OF BRIG. GEN. GEORGE F. ELLIOTT, COMMANDANT,
AND OF COL. CHARLES H. LAUCHHEIMER, ADJUTANT AND
INSPECTOR, AND COL. FRANK N. DENNY, QUARTERMASTER
MARINE CORPS.**

Mr. MUDD. Now, gentlemen, we will hear you on the needs of the Marine Corps.

General ELLIOTT. We ask for an increase. We seriously need an increase of men and officers. At the present time there are 67 per cent of our officers and men outside of the United States serving either on board ship or in the Tropics. Out of the remaining number, 33 per cent, on duty in the United States there are 10 young officers sick, due to arduous work in the Tropics. Many of the officers have now served two years in the Tropics. A number of those aboard the battle ship fleet have completed their three years, and we have no officers to relieve them. Their duties are such that the younger officers are required for officer of the day's duty every other day, never having more than two days off. They are occupied in drills and the training of men; some are occupied on courts-martial, and many other duties take up their time. In consequence many of the best young officers are resigning, or wish to resign, because of the hard duty and the slow promotion which they know accrues to them in the future. The men are doing the same duty—67 per cent out of the country and 33 per cent in. At nearly all posts in the United States they are doing duty day on and day off; occasionally with a second day off. This means that a man on duty in all weathers, winter and summer, actually walks on his feet eight hours a day, sleeps with his clothes on, and on the day he goes off guard he has to attend drills and has to clean the garrison and do general police work. Now, in the Army it is forbidden by law for the soldier to go on guard more than once in five days. He gets four days off.

Colonel LAUCHHEIMER. It is a matter of regulation, General.

General ELLIOTT. Yes; it is a matter of regulation.

Mr. MUDD. Once in three and generally once in two days in the Marine Corps?

General ELLIOTT. No; generally every other day off.

Mr. MUDD. Do you contemplate a modification of that regulation if you get these other men?

General ELLIOTT. No, sir; we would not be able to give such light guard duty even then.

Mr. BUTLER. General, the Marine Corps now consists of how many enlisted men?

General ELLIOTT. Eight thousand seven hundred and seven-one.

Mr. BUTLER. And how many officers?

General ELLIOTT. Two hundred and seventy-eight; that is, including everybody.

Mr. BUTLER. That includes both the line and the staff?

General ELLIOTT. Yes; everybody.

Mr. BUTLER. These officers and men are stationed at various points within the United States and in our possessions elsewhere?

General ELLIOTT. We do not own a piece of naval land in the United States that a marine has not his foot on. We have about 18 stations in the United States. We have them also in Hawaii and in Midway Island. The men at the latter place stay there eight months during the year. In Guam we have men, and—

Mr. MUDD. In stating the percentage that were away and those that were in the United States just how did you draw the line? Are Hawaii and Guam and all those considered as outside of the United States?

General ELLIOTT. Yes.

Mr. MUDD. Thirty-three per cent are in what is called inland service?

General ELLIOTT. Yes. It means that every officer in this percentage in serving six years would be obliged to serve four years away from home in order to be at home two years; that is, with the exception of Alaska, which, however, is in the United States, but the other outside service is in the Tropics.

Mr. MUDD. How does that compare as to the time spent at home and abroad in the Navy?

General ELLIOTT. They generally make cruises now about two years long for the senior officers and about three years for the juniors. But the Army is relieved in the Tropics at the end of two years. The doctors say it is long enough for any man to serve in the Tropics.

Mr. BUTLER. General, will you please insert in this statement that you are making a list of our stations, showing how many men are stationed at each place?

General ELLIOTT. I have it right here.

Mr. BUTLER. Put it in the hearing.

General ELLIOTT. Very well. Here it is.

TABLE I.—Statement showing present required and requested enlisted strength, U. S. Marine Corps.

Stations, etc.	Present strength.	Required strength.	Requested strength.
Staff offices.....	128	150	150
Annapolis, Md.....	204	339	300
Boston, Mass.....	190	450	300
Charleston, S. C.....	78	227	200
Culebra, P. R.....	31	115	50
Guam, L. I.....	99	227	200
Guantanamo, Cuba.....	48	449	200
Honolulu, Hawaii.....	50	115	100
Iona Island, N. Y.....	12	12	10
Isthmian Canal Zone, Panama.....	252	450	300
Key West, Fla.....	34	115	50
League Island, Pa.....	276	461	350
Mare Island, Cal.....	350	678	450
Midway Islands.....	17	17	17
Narragansett Bay, Newport, R. I.....	78	115	100
Naval Home, Pennsylvania.....	33	33	33
Navy-yard, District of Columbia.....	148	227	150
New Orleans, La.....	21	115	100
New York, N. Y.....	428	678	500
Norfolk, Va.....	322	674	480
Pensacola, Fla.....	92	115	50
Philippine Islands.....	1,122	1,803	1,600
Port Royal, S. C.....	27	58	50
Portsmouth, N. H.....	79	227	200
Puget Sound, Wash.....	187	338	200
San Francisco, Cal.....	66	115	100
San Juan, P. R.....	92	226	200
Sitka, Alaska.....	43	113	100
Naval Hospital, Virginia.....	12	12	12
Washington, D. C. (including band and apprentices).....	336	665	448
On recruiting duty.....	83	288	100
Peking, China.....	124	226	125
Yokohama Hospital, Japan.....	13	13	13
Cuba.....	1,016	1,336	1,000
Receiving ships.....	443	445	425
Cruising vessels.....	2,237	2,948	2,838
Naval prison, Portsmouth, N. H.....		226	200
New London, Conn.....		226	100
Total.....	8,771	15,036	11,771

Mr. BUTLER. How many men have we in the Philippines, General Elliott?

General ELLIOTT. We have about 1,200 men.

Mr. BUTLER. On shore and on the ships at that point?

General ELLIOTT. There are very few ships out there. We have 125 men in Peking, also.

Mr. BUTLER. How many officers have you, General Elliott, in the Philippines? Maybe Colonel Lauchheimer can tell?

Colonel LAUCHHEIMER. We have in the Philippines about 34 officers now.

General ELLIOTT. About 34.

Colonel LAUCHHEIMER. One thousand one hundred and twenty-two enlisted men on shore in the Philippines.

General ELLIOTT. That would be about 1,200. Some are coming home and some are on the way out.

Mr. BUTLER. General Elliott, have you a sufficient number of men in your corps to enable you to relieve the men stationed in the Philippines and in the tropics?

General ELLIOTT. No, sir. It is impossible, and that is the very serious condition which confronts us at this time and makes this increase a most pressing necessity to preserve the efficiency of the corps and the health and contentment of the personnel. I can not too urgently impress upon you gentlemen this actual immediate need of

the corps. A man would have only a year's time at home to relieve those men in the tropics.

Mr. TALBOTT. Could not the Regular Army do the same duty that the marines are doing there?

General ELLIOTT. We are doing duty for the Army now, as it has not sufficient men to perform all the duty required of it.

Mr. TALBOTT. But could you not be relieved by the Army?

General ELLIOTT. I do not think so, for the reason I have just stated.

Colonel DENNY. The Secretary of War has said that he has not a sufficient number of soldiers to take the places of the marines in Cuba even.

Mr. TALBOTT. If we attempt to provide for an increase of the Marine Corps and allow further enlistments we will be asked about the Army.

General ELLIOTT. I will tell you why the Army can not perform our duty. We can not have a divided head. The marines of a necessity serve under a naval command habitually, while the Army could not do so.

Mr. TALBOTT. I wanted to know.

Mr. BATES. There would be a conflict of authority at once?

General ELLIOTT. Yes.

Mr. BUTLER. How many men have you in Cuba?

Colonel LAUCHHEIMER. One thousand and sixteen.

Mr. BUTLER. How many officers in Cuba?

Colonel LAUCHHEIMER. Forty-four.

Mr. BUTLER. How long have they been serving there?

Colonel LAUCHHEIMER. Since September, 1906.

Mr. BUTLER. How many men have you at Panama?

General ELLIOTT. Two hundred and fifty-two; something like that, is it not?

Colonel DENNY. We sent some more down there a few days ago.

Colonel LAUCHHEIMER. We have 252 in Panama.

Mr. BUTLER. How many officers have you at Panama?

Colonel LAUCHHEIMER. Eight. That includes the assistant quartermaster.

Mr. BUTLER. A marine is enlisted for what length of service?

General ELLIOTT. Four years.

Mr. BUTLER. As soon as enlisted he is put under a course of instruction?

General ELLIOTT. Yes.

Mr. BUTLER. Where do you send him in the United States?

General ELLIOTT. To Boston, New York, or Washington. We have one of the main recruit stations here.

Mr. BUTLER. What length of instruction do you give him?

General ELLIOTT. About two and one half months.

Mr. BUTLER. Your corps is fully recruited now?

General ELLIOTT. Yes; and has been for some time.

Mr. BUTLER. What increase of enlisted men do you ask for at this time?

General ELLIOTT. We want 3,000 enlisted men.

Mr. BATES. Additional?

General ELLIOTT. Yes.

Mr. BUTLER. Tell us, if you please, why in your judgment is it necessary to increase the enlisted force of the Marine Corps by 3,000 men at this time?

General ELLIOTT. The actual needs of the service both ashore and afloat require it, as you will see by reference to Table II, which seems to me to be convincing. The men are doing guard duty day on and day off. We must make their duties lighter in a certain respect to preserve the health and efficiency of the men. It will also save desertions. When a man deserts it costs the Government an average of \$120 for clothing, and so on. We would like to send only picked men on board the battle ships, men whom we call seasoned; that is, marines whom we have seasoned a year in garrison. On these battle ships that go away from home we want to send the best soldiers the United States can produce.

Mr. BUTLER. How many men have you in this battle-ship fleet that is going around to the Pacific?

Colonel LAUCHHEIMER. One thousand two hundred and eighty-nine.

Mr. BUTLER. How many officers?

Colonel LAUCHHEIMER. Thirty-one.

Mr. MUDD. You want these men in the main because you want to give them lighter duties and let them have more time to themselves, and you already have stations for them?

General ELLIOTT. Not in the main, sir; the principal reason is the urgent necessity for these men, as shown by the needs of the service. What you have stated would come as a natural consequence. We have stations for all of them. New stations are also being established. We are short, very short, at all of our stations. New York is 100 men short. Boston is 150 men short. No station has enough men to do the duty required and give the men a proper time off duty. The men we ask for would be swallowed up so quickly that we would not know what became of them. Commanding officers of posts and commandants of naval stations are daily writing me for more men.

Mr. MUDD. Do you know the comparative ratio of desertions between these men and the men of the Navy?

General ELLIOTT. Yes; we looked it up, and it was about the same.

Mr. MUDD. As to facilities of recruiting, is there as much difficulty or more.

General ELLIOTT. We have not had much trouble in obtaining men.

Colonel LAUCHHEIMER. You will be called upon in the near future. General, to furnish about 700 men for the guards on ships about to be commissioned.

Mr. BUTLER. Up to what time? Within what period of time?

Colonel LAUCHHEIMER. Within the year.

Mr. TALBOTT. Within the fiscal year?

Colonel LAUCHHEIMER. About 350 men will be necessary in the present fiscal year—between this and next July.

Mr. BUTLER. And how many after that?

Colonel LAUCHHEIMER. I should say about the same number, or 700 effective men. We ought to enlist at least 1,000 men in order to have this necessary number of effective men.

Mr. BUTLER. In order to furnish guards for battle ships to go into commission in the next six months?

Colonel LAUCHHEIMER. About 350 within the next six months and 350 the following six months.

Mr. BUTLER. Have you the requisite number of men now to supply those guards for the battle ships that will come into commission in the next six months?

General ELLIOTT. Not without reducing the quota in the navy-yards below their safe strength.

Mr. BUTLER. You are required to furnish protection to the property of the navy-yards, and you are required by the Department to keep on board so many men continually in the navy-yards?

General ELLIOTT. Yes.

Mr. BUTLER. Therefore if you attempt to furnish the guards that are prescribed for the navy-yards you will not have the men to furnish to these ships?

General ELLIOTT. No, sir. It will be impossible, nor can I relieve men who have served a sufficient time in the Tropics.

Mr. BUTLER. Have you the men on hand now by whom you could relieve those now in the Tropics?

General ELLIOTT. No. We can not possibly do that. We have only 33 per cent in the United States. If we sent them all out we would not be able to do it. Sixty-seven per cent, you know, is away from home.

Mr. TALBOTT. That is one-half short?

General ELLIOTT. Yes.

Mr. BUTLER. General Elliott, has this increase been recommended by the President and Secretary of the Navy? Has it been recommended by the Department?

General ELLIOTT. It was not put on the appropriation bill this year and this hearing has just come up.

Mr. BUTLER. But it was recommended last year?

General ELLIOTT. Yes, last year it was recommended by Mr. Bonaparte, and also the year before.

Mr. BUTLER. And the President of the United States has also recommended in his message an increase of the Marine Corps?

Mr. MUDD. This year?

Mr. BUTLER. No; last year. Mr. Theall, please look at the bill and ascertain how much we have recommended as an increase.

Mr. THEALL. One thousand two hundred.

Mr. BUTLER. The Naval Committee recommended an increase of 1,200 men in a provision on the naval appropriation bill, which provision failed to become a law.

General ELLIOTT. The failure was through a point of order made against that provision.

Mr. BUTLER. General Elliott, when was the last increase of enlisted men in the Marine Corps made?

Colonel DENNY. In 1905.

Mr. BUTLER. What increase of enlisted men was made at that time?

General ELLIOTT. One thousand two hundred.

Mr. BUTLER. Since 1905, during a period of three years, you have had no increase in the number of men allowed?

General ELLIOTT. No; and we did not then get the increase we asked for.

Mr. BUTLER. That may be so. I am only directing your attention to the increase which Congress allowed you.

Colonel DENNY. During which time, Mr. Butler, the Navy has had an increase of 12,000 men to meet the demands caused by new vessels being commissioned.

General ELLIOTT. When the General Board, with Admiral Dewey at its head, considered the matter of the increase of the naval establishment, it adopted a rule that the increase of the Marine Corps should go hand in hand with the Navy, and that there should be one marine to every four sailors—in other words, the Marine Corps should be one-fourth of the Navy in strength.

Colonel LAUCHHEIMER. That recommendation was approved by the Department.

General ELLIOTT. I do not know who was the Secretary then.

Colonel LAUCHHEIMER. It was Mr. Moody, I think.

Mr. BATES. Is there a battalion of marines on the Canal Zone?

General ELLIOTT. Yes; of 252 men.

Mr. BATES. And a regiment in Cuba, and a brigade in the Philippines?

General ELLIOTT. Yes; 1,200 men, a naval brigade in the Philippines.

Mr. BATES. And there is also a certain number on board the battle ships?

General ELLIOTT. Yes; about 1,400.

Mr. BATES. Then the increased duty in connection with our island possessions and increased duty on board battle ships by reason of increased number of battle ships make the reserve for relief duty actually depleted?

General ELLIOTT. Yes.

Mr. TALBOTT. We are one-half short in the Philippines alone?

General ELLIOTT. Yes. At San Juan and Culebra and other minor places we have cut them down to the very lowest notch, to a corporal's guard, and really I think we need a body of American soldiers in Porto Rico. It may save trouble some time. I know we need them in Panama, Cuba, and the Philippines.

Mr. BUTLER. You are required to furnish a guard to ships of war?

General ELLIOTT. Yes.

Mr. BUTLER. What is the smallest guard you furnish to each ship?

General ELLIOTT. Twenty-six men to the small cruisers and 60 men to each battle ship.

Mr. BUTLER. What number of officers?

General ELLIOTT. To the battle ships 2, 1 captain and 1 second lieutenant. The small cruisers have 1 lieutenant. There are only 12 second lieutenants in the United States at the present time out of 72 allowed. All the others are away. It is therefore impossible to relieve these away from home.

Mr. BUTLER. How about first lieutenants?

General ELLIOTT. They are a little bit different from that. The first lieutenants have the easiest duty of all. There are 32 of them on foreign service, 18 on sea service, and 35 in the United States. I have therefore provided for no increase in this grade.

Mr. BUTLER. How about the captains?

General ELLIOTT. Twenty-five are on foreign service, 24 on sea service away from home on board ships, and their time is up, and 23 in the United States. Captains are needed more than any other grade, as all first-class vessels have captains in command of the marine detachments.

Mr. TALBOTT. I see you have 113 majors and only 137 captains.

General ELLIOTT. That list you are reading from, marked A, is a comparison, sir, with the Army. They have in the staff 113 majors and 137 captains, while we have in the staff of the Marine Corps but 6 majors and 9 captains. You will also find that we have 1 colonel to every 1,461 men, and the Army has 1 to every 907 men. We have 1 captain to 122 men, and they have a captain to about 66 men, and so on.

The line of the Regular Army consists of—

	Men.
15 regiments of cavalry.....	13, 020
Artillery corps.....	18, 166
30 regiments of infantry.....	25, 649
Signal Corps.....	1, 212
	58, 047

which gives the following proportions of officers to men of the line of the Army and the Marine Corps:

	Army.		Marine Corps	
	Number of officers in grade.	Number of men to each officer.	Number of officers in grade.	Number of men to each officer.
Lieutenant-general.....	1	58, 047		
Major-general.....	7	8, 292		
Brigadier-general.....	18	3, 225	1	8, 771
Colonel.....	64	907	6	1, 461
Lieutenant-colonel.....	67	866	6	1, 461
Major.....	190	305	15	585
Captain.....	888	66	72	122
First lieutenant.....	888	66	85	103
Second lieutenant.....	870	67	72	122
			Staff, Army (number in grade).	Staff, Marine Corps (number in grade).
Brigadier-general.....			8	
Colonel.....			32	3
Lieutenant-colonel.....			45	3
Major.....			113	6
Captain.....			137	9
First lieutenant.....			265	

The Army has 1 staff officer for every 100 men.

The Marine Corps has 1 staff officer for every 418 men.

Colonel DENNY. The General neglected to mention some of the new shore stations recently authorized. For instance, Guantanamo is a new station, for which you gave an appropriation last year for the construction of barracks and officers' quarters.

Mr. BUTLER. You will be required, as I understand, to furnish a guard or a supply of men for Guantanamo?

General ELLIOTT. Yes.

Mr. BUTLER. How many men will be required at Guantanamo?

General ELLIOTT. That will be a big station, and we ought to keep them there that they may be sent over to San Domingo and elsewhere in case they should be needed. There should be a battalion of 400 there.

Mr. BUTLER. How many men do you keep at Guam?

General ELLIOTT. Guam is a small station. I do not think they need more than 160 to 200 men there.

Mr. BUTLER. How many have you at Guam, Colonel Lauchheimer?

Colonel LAUCHHEIMER. Ninety-nine men and four officers.

Mr. BUTLER. Have you any at Honolulu?

Colonel LAUCHHEIMER. Yes, sir. There are 50 men there at the present time and 1 officer.

General ELLIOTT. They need a whole battalion there.

Mr. BUTLER. Have you any officers and men at Honolulu on our reservation of Pearl Harbor?

Colonel LAUCHHEIMER. No; they are at Honolulu proper, at the coaling station.

Colonel DENNY. You have not finished with these additional new stations where Congress authorized new barracks and quarters. We have not men enough for them. We need at Guantanamo 400 men. There are 20 now.

Mr. BUTLER. Why would you need that many men there?

Colonel DENNY. For service, as General Elliott suggested, on the islands near by there, on which there might be revolutions in which we might be interested, and for support, maybe, in Panama, and elsewhere. Also as a force for the naval station to be established at Guantanamo.

Mr. BUTLER. A place where they would stop and collect their men?

Colonel DENNY. Yes; a rendezvous, or military depot. The fleet goes there every year for drill and target practice.

Mr. BUTLER. What sort of barracks have been provided there?

Colonel DENNY. You gave us last year \$10,000 for a temporary frame barracks.

Mr. BUTLER. I see by the newspapers last night that very elaborate barracks have been constructed at Guantanamo.

Colonel DENNY. That is for the Navy. The cost of everything the Marine Corps has is \$10,000. That is a temporary frame building; small and simple and fit for about 50 men.

General ELLIOTT. Before that they had been living in shanties made by themselves from the tops of shell and clothing boxes.

Colonel DENNY. At San Francisco Harbor we have 66 men now. With the new barracks soon to be completed we will require 109 men. At Bremerton we have 150 men. With the additions to the barracks there, which Congress has authorized, we will need 200 men.

Mr. BUTLER. For what purpose?

Colonel DENNY. For strictly military purposes. It is a big navy-yard and growing in importance yearly, and has the only dry dock on the North Pacific coast.

Mr. BUTLER. Where ships are fitted out for sea with men and material?

Colonel DENNY. Yes. It is the only place on the coast of its kind, and the yard is growing rapidly in importance, and the opinion of the authorities is that that number will be required on that station. At New Orleans we have a small squad now because the men have been taken away from there for duty in Cuba. That station is now more important, and 100 men will be required there; 75 more than there are now. Then at New London there will be established an entirely new station, the Navy Department having turned over to us a building there which they are on the point of enlarging. It is proposed to put there 200 men.

General ELLIOTT. They will be recruits and will be distributed to the various stations when ready for duty.

Colonel DENNY. There would be required at these and other shore stations about 1,000 men more than we now have. That is demonstrated satisfactorily, I think, by figures based upon actual requirements, as shown in Table II.

Mr. BUTLER. In short, I understand you have not the men now in your corps, although you are fully recruited, to supply all the needs of the service?

General ELLIOTT. That is right. Not nearly enough, and if we do not get an increase of officers and men immediately we shall be obliged to withdraw men from important duties. The limit has been reached, gentlemen, and the efficiency of the service as well as the health of both officers and men is at stake. I hope what I have stated will impress you very seriously, as the corps is in a critical condition.

Colonel DENNY. Even in these figures, which I have hastily given you, we are short 2,100 for shore stations alone. We are short for the needs of Cuba and the Philippines; that is, for the relief of men who have served there, in the latter particularly, some of them as long as three years. They have not been relieved because there have not been men to take their places. It is the same in the case of the officers. The army rule requires that officers shall not stay more than two years in the Tropics. Our officers are frequently required to stay there more than three years. It is harder duty than any other branch of the service is required to perform, and I beg to impress this fact upon your consideration. We are required to perform it simply because we are short in officers and men. The duty has to be performed and we are compelled to endure the hardship.

Colonel LAUCHHEIMER. In that 2,100 no account is taken of the fact that men are doing duty day on and day off. Men should not be less than one day on and two days off. Fully to meet the requirements of the service we need at the present time 3,000 men, as the General has stated.

General ELLIOTT. The marines do not simply guard themselves, but they guard millions of dollars worth of property; and during my thirty-eight years of service I have seen many a navy-yard saved by a sentinel turning in an alarm and our people putting out the fire before it got under way.

Mr. TALBOTT. General, as to these men that are in the Philippines, for instance, if they are relieved and come home how long would it be before they went on active duty?

General ELLIOTT. Immediately. They go right straight on guard duty in the navy-yards. I would not be able to grant any of them furloughs to go home. It is simply a change of climate for them. In fact the duty at home is quite as strenuous as it is in the Tropics.

Mr. MUDD. Do you state anywhere on any paper filed the number of officers you want?

General ELLIOTT. Yes, sir; I have stated in the bill submitted.

Mr. BUTLER. Have you there a statement showing where the marines are located at different points, and the number at each point, and the number it is necessary to have at each point, and the number on the battle ships?

General ELLIOTT. No; but if you will let me, I will submit a memorandum containing that information.

Mr. MUDD. Sure. That is what we want. You can file any paper of that kind you desire.

General ELLIOTT. Now, in the staff we must have an increase, too, as line officers are at present doing staff duty, and taken away from their legitimate work. The increase of the staff is as important as the line. At present officers who are not bonded are handling public money, due to a shortage of both quartermasters and paymasters. We need these officers badly.

Mr. MUDD. Are you making any recommendations for increase of pay or anything in that line?

General ELLIOTT. We are included in the increase of pay bill, called the Capron bill.

Mr. MUDD. The Capron bill involves the Marine Corps—the enlisted men of the Army and marines.

Colonel DENNY. Under the law we get the same pay and allowances as officers and enlisted men of the infantry of the Army, so that if that passes for the Army it would apply to us.

General ELLIOTT. Now, there is one thing I forgot to say there. Five hundred and sixty dollars a man will enlist him, clothe him, and supply him with fuel and transportation and everything he is entitled to, and pay all his officers as well; that is, \$560 per man is all the money required for the pay and support of all the officers and men. Taking the number of men and multiplying by \$560, it will pay, support, and equip all the officers and men I ask for.

Mr. BUTLER. You have stated, General, what, in your judgment, you actually needed this year in increases of officers and men, have you?

General ELLIOTT. Yes, sir.

Mr. BUTLER. Have you any form of bill that you want to submit to us?

General ELLIOTT. It is all drawn up, and I will now present it to the committee with an accompanying explanatory statement.

A BILL To further increase the efficiency of the United States Marine Corps.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That from and after the passage of this act, and in order to further increase the efficiency of the Marine Corps, the following additional officers, noncommissioned officers, drummers, trumpeters, and privates, to those now provided by law for said corps, are hereby authorized and directed, namely, one Major-General Commandant in lieu of the present Brigadier-General Commandant, two brigadier-generals, one colonel, one lieutenant-colonel, five majors, forty-three captains, twenty-eight second lieutenants, one assistant adjutant and inspector with the rank of lieutenant-colonel, one assistant adjutant and inspector with the rank of major, two assistant quartermasters with the rank of lieutenant-colonel, two assistant quartermasters with the rank of major, eight assistant quartermasters with the rank of captain, one assistant paymaster with the rank of lieutenant-colonel, one assistant paymaster with the rank of major, two assistant paymasters with the rank of captain, thirty sergeant-majors, seventy quartermaster sergeants, thirty of whom shall be available for duty in connection with the pay department, fifty-two first sergeants, two hundred and thirty-six sergeants, two hundred and twenty-three corporals, thirty drummers, thirty trumpeters, and two thousand three hundred and nineteen privates: *Provided, however,* That of the additional enlisted men herein provided for one-half thereof may be enlisted immediately after the approval of this act, the remainder subsequent to July first, nineteen hundred and eight: *And provided further,* That hereafter the number of enlisted men in the Marine Corps shall be such as the Congress may from time to time authorize.

SEC. 2. When the office of Major-General Commandant herein created becomes vacant, the Major-General Commandant shall be appointed by selection by the President from the general or field officers of the corps.

SEC. 3. The brigadier-generals herein provided for shall be appointed by selection by the President from the field officers of the corps.

Sec. 4. The adjutant and inspector, the quartermaster, and the paymaster of the Marine Corps shall, upon being placed upon the retired list, have the rank, pay, and allowances of brigadier-generals.

Sec. 5. The vacancies now existing in the line and the staff departments of the Marine Corps and those created by this act shall be filled in the manner provided by law.

STATEMENT TO ACCOMPANY DRAFT OF BILL TO FURTHER INCREASE
THE EFFICIENCY OF THE MARINE CORPS.

1. There has been no increase in the number of officers of the Marine Corps since those provided for in the act approved March 3, 1903, and no increase in the number of enlisted men since the act approved March 3, 1905. The number of officers and enlisted men which was allowed by these acts was considerably less than was requested, and for whose services urgent necessity was shown.

2. Since the above increases were allowed, the scope of duty of the corps at sea, in our insular possessions, and within the continental limits of the United States, has very considerably increased the absolute requirements of the corps—so much, indeed, that at the present time both officers and enlisted men are doing duty of a most arduous character, enlisted men being turned over sooner than they should be, and when so turned over, at most of the stations, doing duty day on and day off, which is extremely trying and causes discontent, illness, and desertion. In the Army duty of this character is prohibited. In fact the Army Regulations require that men must have five days off between tours of guard duty.

3. No attempt is made in the bill submitted herewith to increase the number of enlisted men so as to assimilate the duty of the Marine Corps with that of the Army in this respect, the purpose being to increase the number of enlisted men so that the immediate requirements of the service may be fulfilled and the duty which they will be called upon to perform be less onerous than that which they are now doing.

4. As for the officers, a state of affairs has arisen which makes it absolutely impossible to order the return to the United States of officers whose period of service in the Tropics has more than expired. The records of the headquarters of the Marine Corps show that 67 per cent of the officers are now on duty either at sea, in Cuba, or in the insular possessions of the United States, and as most of this duty is performed in tropical countries it is of an extremely enervating character, and if longer continued is bound to cause demoralization. It has been the exception in recent years for officers of the corps returning from foreign service to have more than eighteen months duty in the United States before again returning to the Tropics. At the present time it is absolutely impossible to detail reliefs for officers in the Tropics, and unless some remedial action is shortly taken a state of affairs will be presented which will be of a most serious character.

5. In submitting the views of the Commandant of the Marine Corps, in the measure submitted herewith, as to the needs of the corps, most careful attention has been given to the actual number of both officers and enlisted men absolutely required at the present time, and to show this there is transmitted herewith a table marked "II," indicating in detail what is believed to be the present actual requirements of the

Marine Corps and those in the immediate future. From an examination of said table it will be seen that the number of both officers and enlisted men, proposed in the bill submitted herewith, is far below that which is shown to be ultimately necessary when the Navy has attained its authorized growth. It is believed to be better both on the ground of expenditure of public money and from the standpoint of efficiency, to gradually bring the corps up to the number of officers and enlisted men who will ultimately be required properly to perform the duties which, in the future, will devolve upon it, and, therefore, in the present bill only the *present and immediate future* have been considered.

At the present time there are *on shore* in the United States 3,184 enlisted men, while there are *on shore outside* the United States 2,907 and on cruising vessels 2,237, making a total of 5,144 men to be relieved by 3,184.

6. Little need be said in support of that provision of the measure submitted herewith which confers upon the Commandant of the corps the rank of major-general, inasmuch as the present strength of the corps well entitles it to an officer of this rank in command. Furthermore, the increases which are actually needed to permit the corps to perform the duty it is now called upon to perform adds to the strength of this argument. The justice of this legislation has been hitherto shown by the Committees on Naval Affairs of both the Senate and House in incorporating in the bills for the support of the naval service provisions for this increase in rank, which has, however, failed of enactment not on account of its merits, but because it has been ruled out on a point of order, being new legislation on an appropriation bill. A comparison of the number of enlisted men in the Army and Navy, for which general and flag officers are allowed, will further confirm the contention that the Marine corps is justly entitled to this rank for its head. Furthermore, the Commandant of the Marine Corps, prior to the present incumbent, had the rank of major-general with a smaller enlisted strength than that now in service.

7. The two brigadier-generals asked for in the bill are considered necessary owing to the diversified duties being performed by marines and the wide extent of territory at which the stations of the corps are established, the number of men required properly to perform the duty; also in order that a proper military organization may be effected it is believed that the two brigadier-generals of the line are essential. The Secretary of the Navy in his annual report for 1906 recommended an additional brigadier-general for the corps, but if there be but one and he were sent out of the country on foreign duty there would be no way of relieving him of said duty by an officer of the same rank. These brigadier-generals will be stationed at such posts as will give them an appropriate command for an officer of that rank, including the command of the brigade of marines in the Philippines.

8. The table which is hereto appended and which is based on present requirements shows clearly the need for even a greater number of both field and company officers of the line than are required in the proposed bill. When consideration is given to the fact that officers stationed at a post are called upon to perform all kinds of special duty in addition to their duties of a strictly military character, and, further, to the time required for both commissioned and noncommissioned

officers' schools, drills, instructions, etc., as well as the proper provision for officers on detached duty, sick, on leave, en route, etc., and for enlisted men on furlough, sick, en route, etc., it will be seen that at no post will there be more officers or men than are absolutely needed for the proper performance of duty. The table referred to presents figures of such a convincing character that an extended argument is deemed unnecessary, both with regard to the officers and enlisted men.

9. Attention is especially invited to that feature of the table which shows that the number of officers provided for in the measure submitted herewith is practically 100 less than those known to be required, while the number of enlisted men is approximately 3,000 less than those which are needed in the immediate future.

10. Sections 3, 4, and 5 of the bill provide for increases in the staff departments of the corps, and these are rendered necessary, not only by the contemplated increase in the corps, but also by the increased volume of work now required of those departments. The table herewith submitted, which shows the prospective assignments to duty of the officers provided for in the staff departments, clearly shows that the number asked for is modest, the rank assigned being proportionate to the numbers in each department, as well as for the character of the work performed, and furthermore that these officers assimilate to that of officers performing the same duty in the Army and Navy.

11. Section 8 of the bill provides that heads of staff departments of the corps shall, upon being retired, have the rank, pay, and allowances of brigadier-general. This seems to be but fair and just to these officers (there are only three), who have performed arduous and important duties. The adjutant and inspector of the corps performs the duties of both the Adjutant-General's department and that of the Inspector-General's department of the Army. The quartermaster performs duties similar to those of the Quartermaster-General of the Army and the Commissary-General of the Army. In addition he has charge of all ordnance and military stores such as officers of the Ordnance Department of the Army have. The paymaster of the corps, like the Paymaster-General of the Army, has charge of the pay of officers and enlisted men.

17. An examination of the records of the headquarters of the Marine Corps discloses the fact that the percentage of officers on sick leave, leave of absence, under orders, under suspension, etc., is 9.36, while the percentage of enlisted men sick, confined, on furlough, absent without leave, and under orders is 9.48. From this it will be seen that the allowance made in Table "I" is modest. The increase over the amounts currently appropriated under the caption "Pay, Marine Corps," based upon the strength of the corps as ultimately authorized, if the provisions of the proposed bill are enacted into law, will be \$956,000, and the increased appropriations under the "Quartermaster's Department" for provisions, clothing, fuel, military stores, transportation and recruiting, repair of barracks, forage, commutation of quarters, and contingent will be \$913,551. As it will be impossible to fill up the corps during the next fiscal year, these sums will be very materially decreased. In fact, the increased appropriations for the next fiscal year, if the measure submitted is approved, will be very little over \$1,000,000.

Enlisted strength of the United States Marine Corps as now authorized and if increase requested be granted.

Grades.	Sergeant majors.	Quartermaster-sergeants.	Drum major.	First sergeants.	Gunnery sergeant.	Sergeants.	Corporals.	Drummers.	Trumpeters.	Privates.	Leader of the band.	Second leader of band.	First-class musicians.	Second-class musicians.	Third-class musicians.	Aggregate.
Allowed by law.....	6	60	1	82	82	412	737	110	110	7,109	1	1	30	30	....	8,771
Requested to meet present requirements.....	30	70	....	82	....	236	223	30	30	2,319	....	....	-20	....	30	....
Total if increase be granted.....	36	130	1	134	82	648	960	140	140	9,248	1	1	10	30	30	11,771

Mr. BUTLER. I suggest that we hear either Colonel Denny or Colonel Lauchheimer, or both of them, in support of any legislation which they want.

Colonel LAUCHHEIMER. I have nothing additional to submit except to invite attention to the paper (Table I) which the General has presented to you, which I think clearly shows the present requirements of the corps. The General has just handed to Mr. Butler a brief statement which brings to your attention the necessities of the case. In the paper which the General has submitted he has the data on which he has based the increases necessary to meet the immediate necessities of the shore stations as well as the ships, and you have already directed the General to embody in his hearing a table showing the number of men who are at present stationed at the various navy-yards and on board vessels. As has been stated, the numbers in this Table II are those based on the absolute requirements now and in the immediate future, as brought to the General's attention by the commandants of navy-yards and naval stations. The Navy Department has fixed the complements of ships, and the commandant is required to furnish for those ships the stated number of men, and the corps will require within the year about 700 effective men for that purpose. In order to get these effective men we must recruit a larger number, at least 1,000, considering the time required to educate them. Then for these new stations which have been established detachments will be required. It is shown by the muster rolls, as has been stated, that our men are performing military duty for twenty-four hours, during which time they are absolutely on sentry duty for eight hours. They sleep in their clothes. The next morning they are relieved from duty at 9 o'clock. They must police the barracks and themselves, must attend drills, and they are generally occupied until 3 o'clock in the afternoon. Such a man, after doing this duty, has from 3 o'clock that afternoon until 9 o'clock next morning to himself, when he again mounts guard. That routine is kept up in the Tropics and in this country both in summer and in winter. The commandant in the Table II, which he has submitted, shows that if he carried out the wishes of commandants of navy-yards and naval stations as to the strength of marine guards he would require about 4,000 men more than those for whom he has asked. He has asked for only those who appear to him at this time

absolutely necessary to meet the present requirements, and that is about 11,771 men, an increase of practically 3,000 above those now authorized by law. The increase of officers is also based upon the actual present necessities of the service both on shore and at sea. The battle ships require two officers, and smaller ships with smaller guards require one officer. In the Army they have in a company a captain and a first and second lieutenant for 48 men, whereas the Marine Corps has a fixed strength for a company of 108 men, and for that force the commandant asks for one captain, one first and second lieutenant. In fact, he asks only half the number of officers that Congress has authorized in the reorganization act for the Army. If the number of officers for whom the General has asked in this measure be granted, it will enable him to relieve officers who are now on foreign service and give them practically the same time within the continental limits of the United States as they will have outside thereof. That has been for years the practice in the Navy and in the Marine Corps; but, as I said before, now when an officer, after two years abroad in the Tropics, comes home he is immediately put on duty and can not be granted any leave, and within a year or fifteen months he is returned to the Tropics for a tour of duty for two years or two and one-half years, and as a result a large number of our officers are sick, which puts so much more work on the others. If the increased number of officers be given it will give them about as much time in the Tropics and aboard ship as in the United States.

Mr. MUDD. I have not yet got a definite idea as to how far this increase, if granted, would reduce the hours of continuous service.

Colonel LAUCHHEIMER. It would give the men practically one day on and two days off at most of the stations. By regulations in the Army an officer is prohibited from placing an enlisted man on guard more than one day in five. The commandant desires that in the Marine Corps the marines have at least one day on and two days off.

Mr. MUDD. What is the comparative extent of the duty of soldiers and marines and as to the times when they are off?

Colonel LAUCHHEIMER. An army soldier has four days off. The marine has one day off. Our duty is excessively hard.

Mr. MUDD. What is the comparative extent of duty, if any, that they are doing?

Colonel LAUCHHEIMER. The soldier and marine when off duty attend drill in the mornings and perform the necessary police work around the garrison.

General ELLIOTT. He has to go to work and clean his garrison, his clothes, equipments, and so on.

Colonel DENNY. That is, the marine has one-fourth of the leisure time that the enlisted man in the Army has.

Colonel LAUCHHEIMER. When on guard he is in his clothes all night.

Colonel DENNY. According to the testimony of Commander Winslow, of the Navy, before the naval committee a few days ago, there will go into commission soon ten ships, the *Mississippi*, the *Idaho*, the *New Hampshire*, the *California*, the *South Dakota*, the *North Carolina*, the *Montana*, the *Chester*, the *Birmingham*, and the *Salem*; and for those ships, according to the table that he submitted to the committee there will be required 6,227 men. That is the complement of those ships—sailor men I mean. In his statement he said that the total number of men required will be 7,604; the total number

of men available for such duty is 1,452; the total shortage is 6,152. Now the proportion of the number of marines serving on board ships is about one-eighth of the force of the blue jackets, so that when these ships are placed in commission, if that number of sailors are required for that purpose, we would require one-eighth, at least, of the number, based upon the practice of the naval service to-day; that is, one-eighth of 6,227, in round numbers 700. It really ought to be one-ninth of 7,604. To have 700 effective men there should be a total force of 1,000 enlisted.

Mr. MUDD. You have no men available for that unless you get this increase?

Colonel DENNY. There is not a man available for it. To provide them without this increase the force at the navy-yards would have to be so depleted that that force could not possibly be regarded as efficient. This statement can be clearly established to the satisfaction of the committee by letters and reports we have from the different shore stations and letters from commandants asking for more men. It would seem to be conclusive evidence that more men are absolutely required.

General ELLIOTT. Yes.

[No. 24.]

STATEMENT REGARDING CRITICISMS OF NAVY.

REAR-ADMIRAL G. A. CONVERSE, U. S. NAVY (RETIRED).

**NAVY DEPARTMENT,
Washington D. C., February 6, 1908.**

SIR: In compliance with your verbal instructions I have the honor to submit the following statement in regard to certain criticisms which have appeared from time to time in the public prints and elsewhere purporting to describe matters connected with the Navy and which, from their character, would seem to have been prepared by persons whose knowledge of the subjects discussed was limited and incorrect. These articles have undoubtedly caused wrong impressions, which a statement of the facts may in a measure correct.

In investigating this matter recourse has been had to the official records of the Department; to the reports made by officers of our Navy and of foreign services well qualified to pass upon the subjects handled; to professional and other publications of acknowledged authority and high standing, and to other sources also recognized as authoritative.

The records and correspondence bearing upon the designs of our earlier battle ships are voluminous and complete; and it is apparent that the subject was thoroughly considered and discussed during the preparation of the designs of these vessels, and although decided differences of opinion appear, there seems to have been ample justification for the designs which finally received the approval of the Department.

It is not claimed that mistakes have not been made or that our ships are without faults; but in view of the then state of the art of battle-ship building, this fact is not to be wondered at. It is remarkable that the mistakes were so few and that none were really serious. In this respect our record will compare most favorably with that of foreign services.

BATTLE DRILLS.

Battle drill is the exercise or drill of the ships of the fleet individually or collectively for the purpose of training to meet the enemy under the conditions probable or liable to occur in battle. These conditions are varied and numerous, and no human being can foresee or foretell them. The training should, therefore, be along those lines which are deemed most favorable to us for meeting and defeating an enemy under the circumstances upon which we consider that he is likely to make his attacks. To this end our Navy has for some years past, so far as possible with the ships available, endeavored to solve

practically problems of attack and defense of our coasts, and in carrying out this policy has worked alone, at other times in cooperation with the Naval War College, which has devised and studied these problems, and still at other times with the Army and Militia. It has been the practice in our Navy in the conduct of fleet and squadron operations to have a special board of officers devise and outline the contemplated scheme, but the carrying out of the details under the general plans has been left to the wisdom and discretion of the commander in chief and the commanding officers under him. The following extract from an order of the Secretary of the Navy will give an idea of the instructions and the manner of execution:

The object of the maneuvers is to gain experience useful in war and it is therefore desirable that all drills and exercises during the winter shall be carried out under the conditions pertaining to actual war.

Squadron and fleet operations have, in accordance with the above-quoted instructions, been consistently carried out, so far as practicable, under war conditions. Scouting expeditions were sent to get in touch with the enemy and report his movements to the heavy battle fleet; signal stations were established at prominent headlands and on islands along the coast; torpedo attacks were made by both surface and submarine torpedo vessels; forts were engaged; and at temporary naval bases guns were landed and mounted, mines planted, picket boats kept patrolling, guard ships established for protection of mine fields against attacks by an enemy, and many other details incident to war conditions, which are too numerous to attempt to mention.

Drills by divisions (four ships) and squadrons (eight ships) have been carried on whenever ships could be assembled for the purpose; but in a small navy such as ours, with ships required virtually at all times to guard our varied interests in widely scattered parts of the globe, the assembling of the necessary number of ships for drill has been frequently and much hampered. In the spring of 1903 it was practicable for the first time since the construction of the "New Navy" to obtain a squadron of eight battle ships—the least number necessary for properly performing squadron drills—and since then those eight battle ships have been so far as possible kept together for drill purposes. In the spring of 1907, by the completion of new vessels, this number was increased to sixteen battle ships, thus completing two squadrons, which when united formed a fleet. It then, for the first time, became possible to hold and carry out fleet tactics, which was begun in July and August last. In September it became necessary, on account of target practice and needed repairs to separate the ships temporarily, and later on to fit them for their voyage to the Pacific coast, upon which they are now engaged.

Before the eight battle ships were available (in the spring of 1903) fleet drills assimilating war conditions were carried on with cruisers, gunboats, torpedo boats, and such other vessels as could be brought together and used, and frequently the necessary number of vessels for conducting operations were obtained by assigning steam launches, by doubling the distance between ships and supposing vessels in the intervening vacant spaces, and in other similar ways.

Owing to want of similarity in size, speed, handiness and other tactical qualities of the vessels employed, drills of this nature were most unsatisfactory, and productive of little benefit either in training officers to handle ships or in developing tactics.

In addition to the hundreds of times when ships were drilled at sea and in port in tactics, as shown by the reports of officers engaged therein and by the entries in the log books, the following instances of "battle drills," that is, drills such as would be useful and perhaps necessary in battle, have been conducted since the summer of 1900:

September, 1900.—The North Atlantic Fleet, in cooperation with the Army, carried out a series of maneuvers in Narragansett Bay, and also submarine boat operations in conjunction with the fleet.

Summer, 1901.—Extensive maneuvers were held in and about the waters of Long Island Sound.

August, 1902.—A fleet-search problem assimilating the search for a hostile fleet attempting an attack upon the New England coast was carried out.

August and September, 1902.—Combined Army and Navy maneuvers for the attack and defense of the south coast of New England were carried out.

December, 1902.—The combined North Atlantic, European, and South Atlantic squadrons carried out search problems for assumed hostile fleets in the vicinity of Culebra.

December, 1902, and January, 1903.—The Asiatic Fleet operated in the attack upon seizure and defense of Subig Bay, Philippine Islands.

July and August, 1903.—The North Atlantic Fleet conducted another search problem for a hostile fleet assumed to be operating against the New England coast.

August, 1903.—The fleet held joint maneuvers with the Army off Portland, Me.

February and March, 1903.—Fleet maneuvers were carried out in the vicinity of Culebra.

June, 1905.—Joint Army and Navy maneuvers were held in Chesapeake Bay and Potomac River, the ships attacking and the Army defending.

July, 1905.—Atlantic Fleet carried out a search problem for a hostile fleet, assumed to be intending an attack along the New England coast.

January, 1906.—A fleet-search problem between assumed hostile fleets were conducted in the Atlantic Ocean between Hampton Roads and Culebra.

February, 1906.—Another fleet-search problem between assumed hostile fleets was carried out in the Caribbean Sea.

March, 1906.—Fleet tactics using tentative tactical signals were carried out in the vicinity of Guantanamo.

July, 1906.—Tactical drills were conducted with the fleet operating along the New England coast.

January and February, 1907.—The Atlantic Fleet conducted fleet tactics in the Caribbean Sea and vicinity, and the Asiatic Fleet similar tactics in far eastern waters.

July, August, and September, 1907.—The Atlantic Fleet conducted fleet tactics off the Atlantic coast.

In addition to and not included in the foregoing list of exercises and operations are those conducted during the past several years by the three torpedo flotillas and the submarines, which have acted at times independently of the battle ships and at other times in conjunction therewith. At present there are four torpedo-boat flotillas and two submarine-boat flotillas in service, and it is anticipated that excellent results will be obtained from the exercising and operating of these flotillas under the plans and schemes contemplated.

It may be added in connection with the foregoing partial list of battle drills, that the squadrons of vessels taking part therein were commanded during the various years above referred to by Rear-Admirals Farquhar, Higginson, Sumner, Barker, Evans, Sands, and Sigsbee, all of whom saw active service during the civil war, and the commanding officers under them in almost all cases had similar experience during that war or in the war with Spain. It is only natural that such men as these, having gone through active hostilities themselves, would conduct battle drills with the ships under their command on the practical lines which their own experience and study had taught them. Whether considered of any merit or not by amateur critics in our own country, foreign navies and foreign

publications of acknowledged professional standing have not failed to note and pay attention to these exercises.

It has been stated that there is no navy in the world which has had so little battle drill as ours and that since the Spanish war in 1898 the American Navy has had only "ten days of actual battle maneuvers—about sixty or eighty hours—in nine years." The assertion that no navy in the world has had so little drill as ours is, in view of the actual facts of the case, as above shown, very erroneous and misleading. In regard to the assertion that since 1898 only ten days of actual battle maneuvers have been carried out by the Navy, attention is invited to the foregoing list of principal squadron and fleet exercises since 1900, which were carried out under conditions assimilating, so far as practicable, those to be expected and anticipated to occur in actual war and were consequently battle maneuvers or drills in all respects, based upon carefully studied plans of what an enemy might attempt and how best such attacks might be met and repulsed. Considering the force available, it was not possible in peace times to have had more effective or realistic battle drills than such as these.

Now that we have an assured fleet of sixteen battle ships, consisting of two squadrons of eight vessels each, it will be possible to carry out practically, systematically, and continuously schemes of fleet tactics and naval operations; but it is necessary that every effort be made to keep not less than this number of vessels together at all times, if that state of efficiency which our Navy is now rapidly tending toward, and which the people of our country have a right to expect, is to be maintained and fostered. The personnel of our Navy in ambition and professional knowledge is second to none in the world, and now that the opportunity—heretofore denied us, by reason of lack of the requisite number of similar ships—has been reached we should make every possible endeavor to maintain this favorable condition, and in a comparatively short time the results from study, practice, and exercise of our fleet will leave us, perhaps, little to be criticised or desired professionally when compared with other navies.

FREEBOARD OF AMERICAN SHIPS.

Since the designing of our first battle ships of the *Indiana* and *Kearsarge* classes, which, by the way, were more properly considered as coast-line battle ships as distinguished from those of succeeding classes, which were seagoing battle ships, it has been the policy with increase of speed and length of vessel to add to the height of the freeboard, until in our latest ships now under construction the forecastle deck has been given a height above a load water line of 25 feet 9½ inches. Some criticism has been made from time to time because our earlier ships were not as high out of the water as some foreign vessels, but this is not a disadvantage so great as might appear or as many have tried to have the public believe. The *Indiana* and *Kearsarge* classes are too low forward for efficient fighting at sea in fairly heavy weather, but the remainder of our battle ships could without doubt give a good account of themselves in a fight at sea in any weather in which it is at all likely for fleets to engage. Our later designs of ships are fully the equal in regard to desirable or effective freeboard as foreign vessels.

In a recent magazine article criticisms were made of our ships with respect to their freeboard which, in some respects, to say the least, were hardly in accord with the facts. The statements of the heights of the freeboard made in this article, so far as regards vessels of our Navy are approximately correct, but the claim made by the author of the article referred to that—

All modern battleships in foreign navies have forward decks from about 22 to 28 feet above the water.

is very far from the truth, as the following table, made from the most reliable data obtainable of representative battle ships of the navies named will show, which gives the freeboard abreast the forward turret:

Name of vessel (class).	Nation.	Number of vessels completed.	Height of forward deck.
			<i>Pt. In.</i>
Dreadnaught.....	Great Britain.....	1	28 0
King Edward.....	do.....	8	18 0
Triumph.....	do.....	2	18 0
Duncan.....	do.....	5	18 0
Majestic.....	do.....	9	20 6
Renown.....	do.....	1	18 3
Royal Sovereign.....	do.....	7	18 0
Aki.....	Japan.....	2	19 0
Kashima.....	do.....	2	18 6
Mikasa.....	do.....	1	18 6
Asahi.....	do.....	2	20 0
Republique.....	France.....	6	23 6
Jaureguiberry.....	do.....	1	22 0
Suffren.....	do.....	1	23 0
Gaulois.....	do.....	3	24 0
Connecticut.....	United States.....	5	19 0
Virginia.....	do.....	5	18 2
Maine.....	do.....	3	18 6
Alabama.....	do.....	3	18 6
Kearsarge.....	do.....	2	13 3
Iowa.....	do.....	1	18 2

Of the above type ships taken as representative of the British, Japanese, French, and our own navies, it will be noted that but one has a freeboard as high as 28 feet, as stated by the writer of the article, while the vast majority have a freeboard less than the minimum height fixed by this critic. On the whole it would hardly be claimed, after an examination of this table, that the freeboard of our ships is so woefully short of what it should be or below the standard set by foreign services. It might be added as a question for serious consideration in connection with the matter of high freeboard and high gun positions that the Russian battle ships *Borodino*, *Kniaz Suvaroff*, *Ostybia*, and *Alexander III*, approximating 27 feet 0 inches—higher than any of our own ships now in service or any of the type ships shown in the above table, excepting possibly the *Dreadnaught*—capsized or were otherwise sunk in the battle of the Sea of Japan, and this after only a comparatively short fight.

There is but one real justification for very high gun positions and that is to achieve efficiency for fighting in heavy weather at sea, and this single advantage is not only not likely, but is in all probability extremely unlikely to occur. To obtain this very slim advantage—improbable of realization—amateur critics would have us knowingly build our ships with such decreased protection or stability that injuries by shell, admitting water to the hull, may seriously endanger if not actually cause the capsizing of our vessels, as in the cases above referred to. The question of high gun positions as against that of

moderate height is one worthy of the very gravest consideration. Is it wisdom to adopt the former in the hope of attaining a condition for a lone advantage which may, and in all probability will, never be realized, and even at that time, as in all other times of the life of the ship, be subjected to the greatly overmatching disadvantage of necessary loss of stability—the one element above all others upon which the safety of a vessel depends?

In discussing freeboard the fact should not be overlooked that it always has been the policy of our Navy to have our vessels always armed better than our possible opponents, and when it becomes a question of choice between lightly armed and armored vessels with comparatively high freeboard and more powerful and heavily armed and armored ships of moderate but sufficient freeboard we have always striven for the latter, and in the instances where our ships have less freeboard it will be found that they, as with the rest of our vessels, more than outweigh this slight disadvantage by the more weighty and telling advantage of armor and armament, which fact will be amply shown from a comparison of our ships and batteries with vessels of other navies of the same date of design.

It may not be amiss, while dealing with the subject of gun heights and freeboard, to add that the Japanese in their most recently designed ships have, notwithstanding an increase of speed and length of vessels, not raised their gun positions nor the freeboard, which is one of the results gained from their experiences from their recent war, and which seems to uphold the good idea of our system of building ships without the excessive heights deemed to be necessary by some critics.

HEIGHT OF GUN POSITIONS.

The following table, compiled from what is considered the most reliable authorities available, gives the height above water at the load water line of the main battery (forecastle), and broadside battery guns of our own ships and those of British and French vessels of the same relative year of laying down:

Vessels.	Nation.	Main battery.	Broadside guns.	
			<i>Ft. in.</i>	<i>Ft. in.</i>
1891.				
Indiana.....	United States....	17 9	{ 8 guns at 25 4 guns at 14	0 10½
Royal Sovereign.....	Great Britain....	23 0	{ 6 guns at 22 4 guns at 14	0 0
Jaureguiberry.....	France.....	26 6	{ 8 guns at 25 4 guns at 19	0 0
1893.				
Iowa.....	United States....	25 6½	{ 8 guns at 25 4 guns at 14	8 9
Renown.....	Great Britain....	25 9	{ 6 guns at 10 4 guns at 19	3 3
Bouvet.....	France.....	27 6	{ 6 guns at 15 2 guns at 21	0 6
1896.				
Kearsarge.....	United States....	20 2½	{ 2 guns at 29 2 guns at 27 14 guns at 15	4½ 11 22
Alabama.....	United States....	26 8½	{ 10 guns at 15 4 guns at 22	8 11½
Magnificent.....	Great Britain....	27 0	{ 8 guns at 14 4 guns at 22	8 3
Gaulois.....	France.....	29 0	{ 8 guns at 20 2 guns at 28	6 0

Vessels.	Nation.	Main battery.	Broadside guns.
		<i>Ft. in.</i>	<i>Ft. in.</i>
1899.			
Maine.....	United States.....	26 10 $\frac{1}{2}$	{ 12 guns at 15 2 $\frac{1}{2}$ 4 guns at 23 4 $\frac{1}{2}$
Duncan.....	Great Britain.....	24 6	{ 8 guns at 13 6 4 guns at 21 0
Suffren.....	France.....	30 0	{ 6 guns at 28 0 4 guns at 15 0
1901.			
Georgia.....	United States.....	25 3 $\frac{1}{2}$	{ 4 guns at 35 0 4 guns at 25 4 12 guns at 14 8 $\frac{1}{2}$
République.....	France.....	33 7	{ 8 guns at 27 10 $\frac{1}{2}$ 4 guns at 29 10 2 guns at 19 8 4 guns at 11 7 $\frac{1}{2}$
1902.			
Swiftsure.....	Great Britain.....	25 0	{ 10 guns at 13 3 4 guns at 21 6
1903.			
Connecticut.....	United States.....	26 5	{ 8 guns at 26 6 12 guns at 15 0 $\frac{1}{2}$
King Edward VII.....	Great Britain.....	23 6	{ 10 guns at 12 10 4 guns at 27 10 $\frac{1}{2}$ 2 guns at 29 10 2 guns at 19 8 2 guns at 11 7 $\frac{1}{2}$
Liberté.....	France.....	33 7 $\frac{1}{2}$	
1904.			
Idaho.....	United States.....	26 8	{ 8 guns at 26 2 8 guns at 14 7
Lord Nelson.....	Great Britain.....	27 0	{ 10 guns at 23 0 2 guns at 33 5 2 guns at 25 6 2 guns at 17 6 10 guns at 21 11 4 guns at 29 5 8 guns at 37 2
1906.			
Michigan.....	United States.....	25 5	
Bellerophon.....	Great Britain.....		{ Heights not obtainable, but probably not greater than our vessels of same date.
Danton.....	France.....		
1907.			
Delaware.....	United States.....	31 4 $\frac{1}{2}$	{ 2 guns at 39 4 $\frac{1}{2}$ 2 guns at 32 1 $\frac{1}{2}$ 4 guns at 24 1 $\frac{1}{2}$ 14 guns at 14 4 $\frac{1}{2}$
St. Vincent.....	Great Britain.....		{ Heights not obtainable, but probably not greater than our vessels of same date.
	France.....		

In the foregoing the guns on the forecastle are classed under the head of "main battery;" and under the heading of "broadside guns" the heights of the intermediate battery guns firing on the broadside are given.

From the above table it will be seen that compared with the British navy our "main battery" guns, with the exception of the *Indiana* and *Kearsarge* classes (which were designed and built rather as coastwise than as seagoing ships), are about as high if not higher, and that our broadside guns are considerably more elevated than in corresponding British ships, and the same may be said with regard to Japanese ships, as they are built almost on British lines.

The data for comparison with vessels of the German navy is not available, but it is hardly probable that the guns of their ships are any higher above the water than corresponding British ships. It will be observed that the heights of guns on French naval vessels are considerably higher than our own or the British. This policy of adopting high-gun positions is a practice which the French have carried out for years, but which has not been followed by other nations, excepting the Russians. The wisdom of this practice of high-gun positions is open to serious question, and it is quite probable that there are more resultant disadvantages than advantages when engaged in actual fighting and damages permitting the entry of water into the hull have been received, in which case the vitally important element of stability is a matter of the gravest danger in highly built ships and much less so in those not so high.

After careful examination of the plans and data available, compiled from the most reliable sources, it is found that with respect to the height of freeboard forward, height of main gun axes, and heights of broadside gun axes our battle ships with the exception of the *Indiana* and *Kearsarge* classes, are as high, if not higher, than the British and Japanese battle ships of the same period of design. These heights have been regarded as quite satisfactory by British and American officers of wide experience. We have never deemed it advisable to follow the French idea of great height of freeboard, but in our latest designed ships, with increased speed, length of hull, and fine water lines, it has been thought wise to add to the freeboard. This, however, does not appear to be the Japanese practice, as in their latest battle ship, the *Aki*, of approximately 20,000 tons, they have still held the freeboard forward down to less than that of our *Connecticut* class.

Inasmuch as high freeboards in ships of moderate length involves an enormous increase in weight without corresponding increase in military efficiency, it may be regarded that our practice of the past ten years or more, supported as it has been by that of Great Britain and Japan, with respect to freeboard and height of guns, has been wise and productive of good results. Moreover, the behavior of the Japanese battle ships in the fight of the Sea of Japan, should be conclusive testimony as to the ability of such vessels to fight capably under rough weather conditions, were such additional practical evidence necessary. Finally, it may be added that to officers who have commanded our battle ships there seems unanimity of opinion that they can, with the possible exception of the *Indiana* and *Kearsarge* classes, fight their batteries in any sea in which naval actions are at all likely to take place. These opinions of officers who have actually commanded our ships are, it would seem, entitled to greater weight than the critics, among whom the loudest and most bitter have never commanded a ship, and therefore can have little, if any, practical knowledge upon which to base their erroneous criticisms.

TORPEDO DEFENSE GUNS.

One of the lessons deduced from the Russo-Japanese war was that the 3 and 6 pounder guns, theretofore regarded as part of a battle ship's defense against torpedo boat attack, were insufficient in power to effectively stop a modern torpedo boat under ordinary circumstances. Furthermore, since the range of the torpedo has recently

increased greatly, guns of larger caliber and greater power and longer range have become necessary to prevent torpedo attacks. The 5-inch gun is now considered the smallest caliber effective for this work and has been adopted by us. All our battle ships now carry intermediate batteries of 5-inch or larger caliber, and those vessels still having 3 and 6 pounders on board are to have them replaced by guns of larger caliber as fast as the heavier guns can be provided. In the meanwhile our vessels are by no means unprovided to beat off hostile attacks of torpedo boats, as it is a well known fact that the intermediate batteries of rapid or quick firing guns carried by our ships are amply able to meet the necessities, and, on the whole, are also more numerous than are carried by battle ships of other navies, of approximately the same time of design.

BATTLE SHIP ARMOR.

The armor of a battle ship is divided into two general classes:

First. That used for the protection of the gun positions.

Second. That used for the protection of the hull.

It may be assumed that the armor for the protection of the guns, positions of the vessels of our Navy is distributed satisfactorily, as the criticisms which have recently appeared have been almost exclusively confined to the distribution of the armor used for the protection of the hull.

The weight which can be devoted to armor protection is limited; and hence it becomes necessary to distribute such armor as is allowed to the best possible advantage.

The object of the hull armor is, generally speaking, twofold:

1. To protect the vitals of the ship—engines, boilers, and ammunition.

2. To preserve the buoyancy and stability of the ship itself.

"The above are distinct functions. A shot may penetrate the vitals and disable the machinery or explode a boiler or magazine, thus disabling or destroying the ship, while the buoyancy and stability have sustained little or no damage."

"Again, if there is inadequate protection to buoyancy and stability, a number of shots between wind and water may sink the ship bodily or throw so much of the plane of flotation open to the sea that the ship loses stability and capsizes, while the vitals are absolutely unhurt."

For convenience the armor used for protection of the hull may be designated as "belt armor," "side armor," and "protective deck."

The "belt armor" usually consists of a narrow belt (varying in our ships from a minimum of 7 feet 6 inches to a maximum of 9 feet 3 inches in width) sufficiently thick to resist penetration by the heaviest projectile, located with reference to the water line of the ship and extending sufficiently far below the water to preclude all possibility of a shot entering the side or bottom of the vessel—unless, indeed, through an excessive roll or a listing of the ship due to wound or injury received, the side should become exposed below the belt on the raised side.

The "side armor" is thinner than the belt armor, but as thick as the limited weight available will permit, is placed on top of the belt armor and extends to varying heights—generally to the deck above.

The "protective deck" is—as its name implies—an armored water-

tight deck, completely covering the vitals of the vessel and is usually at the level of the upper edge of the belt armor extending flat to the sides in some vessels, and in others having its outer edges curved down to join the side at the lower edge of the belt.

A "cofferdam" several feet high filled with cellulose is built at the junction of the belt and protective deck as a further protection for the preservation of buoyancy and stability.

If the function of the belt armor was simply to prevent a projectile from reaching the vitals of the ship—engines, boilers, and magazines—evidently its position would be fixed wholly by the internal arrangement of the ship, and would be entirely independent of the vessel's draft. Further consideration of this function of the belt may be therefore omitted and its function as a means of preserving the buoyancy and stability of the vessel, the qualities with which we are principally interested, considered.

The piercing of the hull under or below the belt, would almost certainly be fatal to the vessel. The compartments here are large, the pressure of the water great, and it would be almost impossible to make use successfully of any appliance to stop the inflow and repair damage. Very probably, also, the projectile entering below the belt armor would meet with little resistance and would penetrate into the central portion of the ship, and if it exploded there, very possibly put the ship completely out of action. On the other hand, even should the upper edge of the belt be at the water line, the entrance of a shell above the belt armor, would also be above the protective deck, and so long as the latter remains intact (i. e., not pierced by either the shell itself or by its fragments) no disastrous results would be entailed, as the parts of the hull above the belt and protective deck are subdivided by watertight and other compartments in comparatively small sections, and the inflow of water into these small compartments detached from one another would be checked by the cellulose cofferdam and by the filled coal bunkers. Furthermore, the amount of water which would enter a vessel through a hole but a few inches above the water line would not be materially greater than the quantity which would enter through an exactly equal hole 2 or 3 feet above that line in the case of a ship moving at speed in a seaway.

In 1895, the late Rear-Admiral Sampson, then Chief of the Bureau of Ordnance, Navy Department, wrote: "There must be a fixed depth of the armor below the water for ships of the same beam which would best fulfill its use and this depth should always be maintained in action." * * * "The depth should be whatever theory and observation may establish." It appears as the results of study and observation that at about this time the depth of armor below the water necessary for the protection of the hulls of our ships was fixed at 4 feet for vessels having approximately 70 feet beam.

The belt varies in width, depending on thickness (as affecting weight), and other considerations, and in our service has been from $7\frac{1}{2}$ to $9\frac{1}{2}$ feet in width. The lower edge of the belt is approximately 4 feet below the designed normal water line on our earlier vessels and 5 feet on some of the more recent, and the upper edge is from $2\frac{1}{2}$ feet to $4\frac{1}{2}$ feet above that line.

As the lower edge of the belt armor, in order to achieve the best results, must be a given depth below the water when a vessel is in action, the question which naturally presented itself was: What

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would be the probable draft of a vessel when in action? Would it be the vessel's deepest draft, its lightest draft, or some intermediate draft?

A board of which Rear-Admiral J. G. Walker, U. S. N., was president, on May 18, 1896, reported.

A battle ship's "normal" draft should be her "fighting draft"—otherwise the term is inaccurate and misleading—not her maximum draft with all the ammunition, coal, and stores that she can carry, but her draft with a large percentage of these supplies—not less than two-thirds of her full capacity of each on board. And the position of the armor belt should bear its proper relation to this actual load line, not to a fictitious load line seldom realized under service conditions.

The above definition of a vessel's "normal draft" practically obtains to-day, the only exception being in regard to the amount of coal carried. This is somewhat less and in our service corresponds to foreign practice, thus permitting a more accurate comparison to be made with vessels of other nations as regards speed, maneuvering qualities, freeboard, height of gun positions, etc. It is with this "normal draft" as a standard that vessels of our Navy have been designed.

It is, however, unfortunately a fact, not only with respect to our own but with respect to all other naval services, that the actual draft of men-of-war at completion is frequently greater than that for which they were designed, the principal reason for this discrepancy being due to changes of a military character made after the designs have been approved and sometimes after actual construction has progressed for several years. This was notably the case with respect to the *Indiana* class of vessels, where an additional water-tight bulkhead was added after the unfortunate *Victoria* disaster, and in the *Virginia* and *Connecticut* classes, where radical changes in the turret and battery foundations were necessitated by improvements in the battery, which had been developed subsequently to the approval of the design but before the completion of the building of the vessel. The visible effect of this increased displacement is most apparent in the decrease in the height of the upper edge of the belt armor above the line of flotation of the vessel, this decrease amounting in some cases to 5 or 6 inches, rarely more than 9 inches. This fact, however, does not materially affect the defensive qualities of the vessel.

Much of the criticism which has been made in regard to the distribution of the belt armor of vessels of our Navy seems to be based upon the assumption that vessels will always strive to go into action at their deep load draft, as is shown by the following quotations:

To get into action with everything on board possible in the way of ammunition, stores, and coal will be a prime object of all good strategists. Therefore the water line about which the armor should be distributed is not the normal line. (Naval critic.)

No ship (battle ship) * * * has yet been planned to have a water-line protection reaching more than 6 inches above the water when she is ready to fight. The condition of our armored cruisers is almost the same. (Civilian critic.)

Notwithstanding the above assertions, many of the most distinguished and experienced officers of our own and foreign navies still hold the opinion, expressed in 1896 by that board of distinguished officers, of which the late Rear-Admiral J. G. Walker was president, that "the fighting draft of a battle ship would not be her maximum draft with all the ammunition, coal, and stores that she can carry * * * and that the position of the armor belt should bear its

proper relation to this actual load line; not to a fictitious load line seldom realized in service conditions."

In view, however, of the very marked increase in the rapidity of gun fire since the above was written it is undoubtedly desirable that a vessel should carry her full, or even an excess, supply of ammunition when in condition for battle, instead of the two-thirds supply, as above stated. This amount of ammunition carried would, of course, tend to increase the displacement and to give greater draft; but at the same time many articles carried in peace times would be sent ashore as being unnecessary in war time and would largely, if not entirely, compensate for the increased supply of ammunition taken on board, and the final result would very probably be little or no increase of draft, the "normal draft" remaining practically undisturbed.

One of the principal causes of the defeat of the Russian fleet in the battle of Tsushima Straits in May, 1905, is attributed to the fact that the vessels of that fleet were overloaded with coal and stores of all kinds; and it is asserted that his subordinates were unable to understand the great desire which Admiral Rozhdestvinsky always seemed to have to carry immense amounts of coal—his vessels having on board at this battle enough to steam a distance of more than 3,000 miles, while the actual distance required to be traveled was but 900. His ships were similarly overloaded with stores and supplies. This overloaded condition of the Russian fleet, let it be understood, was while passing through the waters and in immediate proximity to the naval bases of a hostile fleet of relatively their own strength and with the probability of meeting the enemy's fleet in battle so great that it might have been regarded as almost a certainty. On the other hand, it is stated on reliable authority that the Japanese fleet, in anticipation of meeting the Russian fleet, had been completely stripped by removing everything possible in the way of weight (equipment, superfluous stores, etc.) from the vessels and that they had on board at the time of the battle provisions sufficient to last only ten days. It may be reasonably assumed because of their lightness these vessels were near what we would call their "normal draft." Togo's fleet was in fighting trim; Rozhdestvinsky's fleet was not. The result could easily have been forecast. Still the critics of our Navy would have us believe that ships should always, as a preparation for battle, put themselves in the condition of those that met defeat.

The newly organized "battle-ship fleet" proceeded to sea for "tactical" drill on August 26, 1907, and continued at sea, exercising daily until the afternoon of September 5. An officer noted for his professional attainments and accuracy of judgment, who was detailed especially as an observer upon the drill and upon the behavior of the ships, reported as follows:

Armor belt.—There was little or no seaway to judge of its effect in exposing the armor belt of the battle ships. But the combined result of the sea and helm was observed at times to make a difference of 1 to 2 feet in the amount of the belt exposed. The amount of coal in the fleet during these exercises may be considered as normal—that is, the submergence of the armor belt was about the average. In all cases the top of the belt was exposed above the water and in some cases upon arrival at Rockport the belt was exposed 3 or 4 feet.

This is the height of the armor belt above the water line after the arrival of the ships in port after the drills, even while the majority of them had considerably more than 1,000 tons of coal on board, and

one only of the entire number had less than 750 tons, which is shown by an examination of the log books of the various vessels at the time. It may be further stated that with only one exception all the vessels composing the fleet above mentioned began the drills with bunker coal much in excess of their normal supply, several having from 1,500 to 1,800 tons on board, and at Rockport the majority still had from 900 to 1,600 tons remaining—that is, had about or more than one-half their total bunker capacity filled and still available for service—and yet the height of the armor belt above water was as stated above. Evidently under these conditions, which are said to have been normal, the expectation of having the armor belt above water when the vessels are at their designed “normal draft” and ready for efficient service seems reasonably well borne out in practice.

Again, when this same fleet sailed for the West Indies last winter the ships were so loaded down that the upper edge of their belt armor was near the water line; and similarly when the fleet sailed but a short time ago for the Pacific their draft was even greater than on the other occasion. Both these cases, however, were exceptional, in that the fleet was making a “stragetic” move, and carried with it everything necessary for its own consumption on the cruise and everything possible in the way of supplies and ammunition for use at its future base, conditions which would not obtain in case of anticipated or imminent fleet action.

Notwithstanding, however, the low position of the top of the main armor belt upon the two occasions above mentioned, which were, as above stated, exceptional and unlikely to occur in the event of hostilities, still the safety of the vessels was in no way jeopardized thereby, as in our ships the protective deck is about on a level with the top of the belt armor. Any projectile striking against that part of the belt armor still above the water line would, in all probability, be either entirely broken up or in any case rendered practically harmless so far as any injury to the protective deck is concerned. Were a projectile, however, to strike underneath the belt armor, it would pierce the thin plating of the ship and perhaps destroy the motive power as well as fatally affect the flotation or stability by the large amount of water rapidly entering the large compartments of the vessel. As the belt is at its maximum depth below the water line, it affords an unusual protection to the bottom of the ship, and therefore there need be little or no apprehension of an injury in that region. On the other hand, a projectile striking above the armor belt, but at the water line, may pierce the ship's side and cause damage by explosion within, but such damage will not extend below the protective deck. The result, aside from the local effect of the explosion, will be that water will flow in, and may, unless checked, fill the smaller compartment to the height of the hole and affect the vessel's stability to that extent. This will be the result whether the top of the armor belt be at the water's edge or 2 or more feet above it. It, therefore, must be evident that a shell entering below the belt armor is of vital importance, while one entering above the belt, even if submerged, is incomparably less serious. Finally, as weights in the construction of our ships limit the width of the belt armor to from about 7 to 9 feet it may be considered that about 5 feet below the normal water line would be a desirable distribution for battle conditions. But as submergence of the belt varies at times several feet, we must bear in mind that it is better to have the

top of the belt awash or even submerged than to run any risk whatever of getting the bottom of the belt too high—that is, too near the surface of the water.

Referring to statements frequently made in print and otherwise from persons whose information upon the subject is not complete, to the effect that the main armor belt of our ships is habitually submerged or awash, a word in explanation of this error may not be amiss. In some of our ships the main armor belt protecting the magazines, engine, and boiler spaces—the vitals of the ship—extends usually from 2 to 3 feet or more above water when the ship has her ammunition, coal, and stores about in condition for active service; and this belt is, after covering the portion of the ship containing the vitals, narrowed down 15 inches and continued to the bow and to the stern where protection is not so vital. There is reason for believing that in some instances commanding officers have by filling or emptying the trimming tanks, the shifting of weights, the use of coal exclusively from forward bunkers or other perfectly legitimate means, so trimmed their respective ships that they are down (when loaded) from $1\frac{1}{2}$ to 2 or more feet by the stern. This depression or trimming by the stern of course causes a like depression of the after end of the narrowed-down armor belt, and in some instances it may be true that the extreme after end of this belt has been thereby submerged or awash, but a corresponding rise of armor necessarily follows from the extreme stern to the extreme bow. This condition of trimming by the stern is an entirely personal preference of the commanding officer of the individual ship, and may be due to the possibility of the ship steaming or handling easier in squadron; but it is hardly at all probable that she would be trimmed thus in time of war or preparatory to going into action. Even if so trimmed, the main armor belt—that is, the part protecting the vitals, the primary reason for its existence—would be still well above water and in no instance would it be submerged.

It is possible that persons unfamiliar with battle ships may take the top of the (usually red) painted water line ("boot-toopping"), as representing the upper limit of the armor belt. This, however, can not be taken as a proper guide, as the position of the painted water line is variable, at times being possibly 2 feet or more below the top of the armor belt, and may have no relation or connection with its actual position. It is therefore readily seen how easily incorrect ideas of the height of the armor belt above water may be formed if judged from the position of the painted water line.

Those who advocate that the "deep-load draft" is the "fighting draft" claim that the belt armor should be disposed with reference to this water line so far as regards the submergence of its lower edge. As has been stated hereinbefore, the minimum depth to which the belt should extend below the water in order to afford proper protection, has been fixed approximately 4 feet for our earliest vessels and 5 feet for the latest. Assume the belt armor to extend 5 feet below the deep-load line. As coal, stores, and ammunition are consumed the depth to which the belt extends below the water is constantly decreasing; and when these stores are reduced to what is considered the normal supply—which condition in the opinion of many officers is the proper fighting trim—the lower edge of the belt will be considerably less than 3 feet below the water in many of the ships. The most important part of the vessel (that containing the vitals) is thus

left unprotected, and it is gravely proposed by these critics to bring the ship back to its deep-load draft (and thus submerge the belt to its proper depth) by the admission of water to the double bottoms. Were this theory carried out in our large ships of recent design the amount of water necessary to accomplish the results would be approximately 2,000 tons; but the structure of the ship will not permit of so large an amount being admitted to the double bottoms.

If the admission of the required amount of water were possible, it would mean:

a. A loss of the protection which the double bottom system is primarily designed to give a vessel.

b. An increase of draft amounting in some cases to more than 2 feet.

c. A decrease of speed due to increase in draft and displacement amounting to from a knot to a knot and a half, or even more.

d. Decreased handiness of the ship, due to the great draft.

e. A decrease in freeboard of approximately 2 feet.

f. A decrease in the height of gun positions by approximately 2 feet.

Certainly a vessel whose fighting efficiency has thus been impaired by artificial means is not in condition to meet an enemy who has taken the usual precautions deemed necessary to "prepare and clear his ship for action."

On the other hand, if the belt armor was disposed with reference to the "normal draft" of the ship, its lower edge would then be at least 5 feet below the surface of the water at all drafts between the "normal" and the "deep load" draft, and it would not be necessary to compensate for the consumption of stores or reduction of weights by any artificial means; the under-water body of the ship would be protected so far as is contemplated by belt armor and the double-bottom system, and in this respect always ready for battle. The additional weight of armor necessary for this disposition of the belt would be, approximately, 225 tons, which would not under any circumstances increase the draft of the vessel more than 3 inches.

As the object of the belt armor is to prevent projectiles from entering the hull of the vessel at or below the water line, its thickness must necessarily be made to depend upon the quality of the material used. In our early days of battle-ship construction it was found that in order to prevent the penetration of the heaviest projectiles (13-inch), at a distance of 1,000 yards, a thickness of 18 inches was necessary in the then state of the art of armor making. As the water itself would offer some resistance to a striking projectile, plates were made thickest at the upper edge and tapered gradually toward the lower. Of course, it was necessary to make the belt as narrow as possible to fulfill its essential requirements in vessels of that date, on account of the great weight involved. Of necessity the side armor was made thin; in some of the early ships only 4 inches. Improvements in armor making have been constant but gradual, and at the present time, without decreasing the resisting power of the belt armor, it has been possible to gradually reduce its thickness and the saving in weight has been partially applied to increasing the thickness of the side armor, until at the present time, in our latest designed ships, the difference in thickness of the belt and side armor is but 1 inch, and it is probable that even that difference will disappear in the near future, so that there will be no distinction between the two. While preserving full protection below the water, equal protection can now be afforded to

the hull for a considerable height above. As the protective deck is still retained, it should be apparent to even the most biased critics that the protection thus afforded will compare most favorably with that of the ships of other nations.

TURRET DESIGNS WITH RESPECT TO AMMUNITION HOISTS AND MAGAZINE SAFETY.

Questions concerning the numerous mechanical devices and detail arrangements which go to make up such a complicated machine as a battle ship require considerable knowledge of details before discussions relating thereto can be readily understood by those not technically informed.

This observation applies with more or less force to the subject of turret design and to the criticisms relative to the open shaft direct ammunition hoist system employed in our battleships as compared with one of the systems used in England and known as the two-stage hoist with a second handling room just beneath the turret floor.

The unfortunate accidents which have occurred in four of our turrets have more than ever forcibly called attention to the danger to which a ship's magazine may at times be exposed and to the precautions usually employed in turret designs both in this country and abroad to avoid such a possible disaster. A description of the practice pursued in the turret designs of our own ships and those of foreign ships showing the general arrangement usually adopted will illustrate this point.

AMERICAN DESIGN.

The American turret design with respect to its ammunition supply may be described as of the all-around loading direct ammunition hoist type. That is, the guns can be loaded at any position in the arc of their train and while in motion, as distinguishing the type from the former English custom of having to revolve the turrets to a fixed position for loading after each time the guns were fired.

The ammunition is hoisted from what is known as the "handling room" up a central hoist in the vertical axis of the turret and thence directly to the breech of the gun. All the parts connected with this ammunition hoist revolve with the turret.

Around the handling room at the base of the ammunition hoist are grouped the magazine and shell rooms for the storage of ammunition. These magazines and shell rooms are especially constructed compartments kept closed by water-tight doors and fitted with arrangements for flooding, etc. The powder in the magazines is stored in air-tight copper tanks and when required for loading into the gun it is removed from the copper tank, passed through a scuttle closed by a flap in the door and placed on the hoist which carries it direct to the breech of the gun. This general arrangement is shown as sketch No. 1. To provide additional safety for the magazine a platform has been more recently placed between the turret floor and the handling room below with an automatic flap steel door through which passes the ammunition carrier.

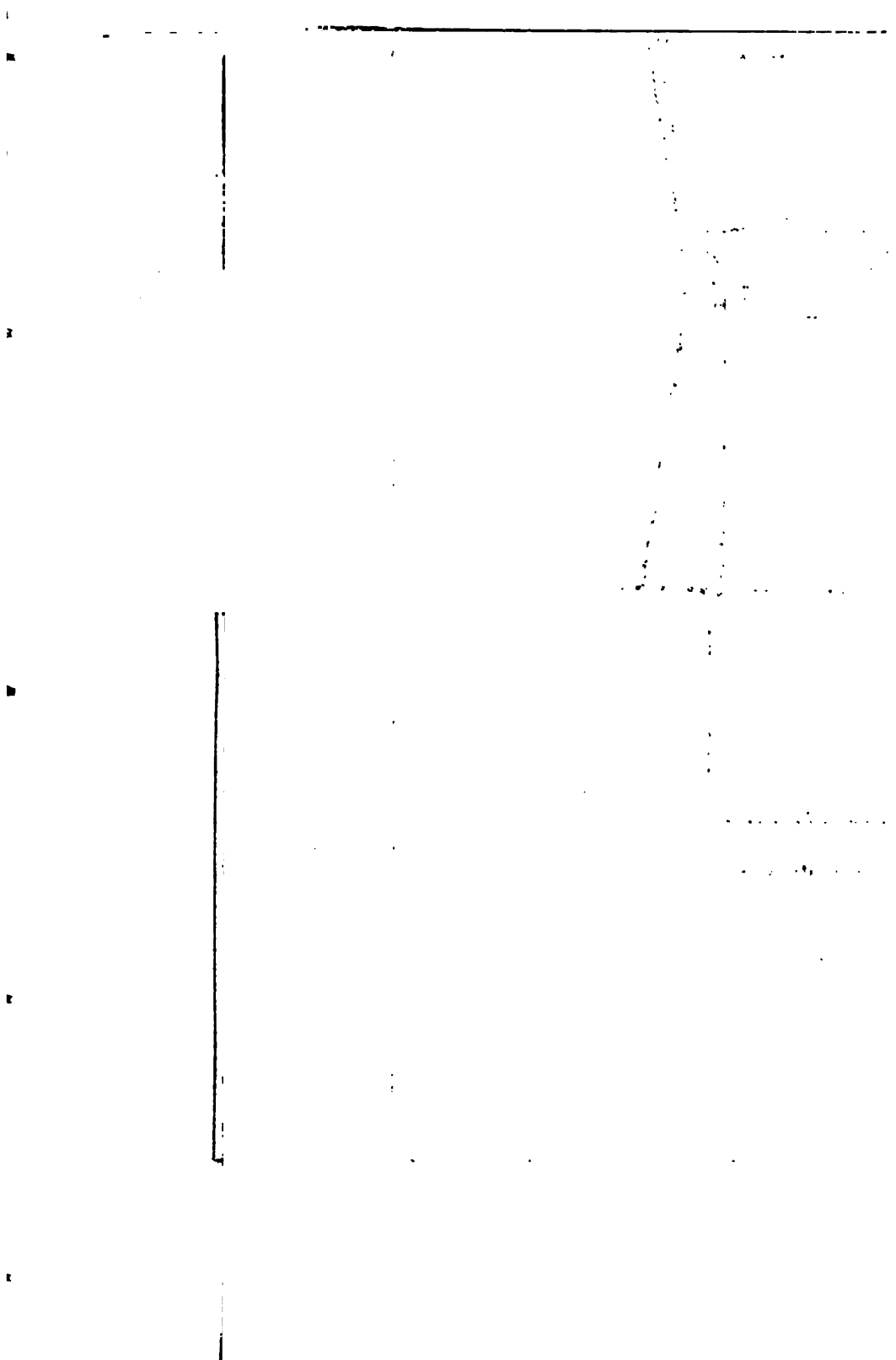
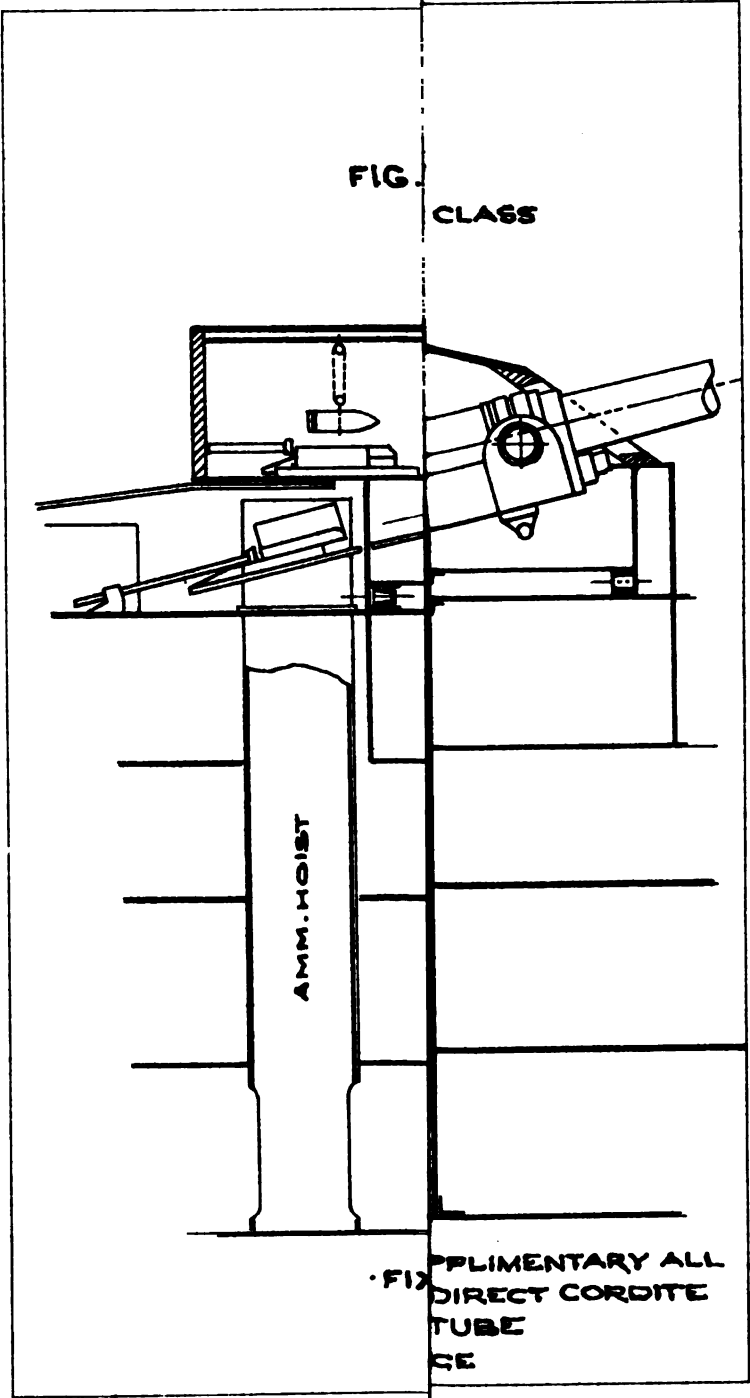






FIG. CLASS



ENGLISH TURRETS FOR 12-INCH GUNS.

English battle ships, commencing with the *Dreadnought*, *Thunderer*, and *Devastation* in 1869 up to the *Colossus* class of 1886, carried muzzle-loading guns, and that turret system has now become obsolete. Commencing with the *Colossus* class of 1886, the first of the breech-loading guns were mounted in turrets controlled by hydraulic power. The guns were loaded by training the turret to a fixed loading position so as to bring the breech of the gun over an ammunition hoist working within a shaft or trunk built into the structure of the ship and independent of the revolving parts of the turret. The ammunition was supplied in carriers, which traveled from the handling room on the magazine and shell room deck direct to the breech of the gun. This same general arrangement was used on the English battle ships *Camperdown*, *Anson*, *Howe*, *Rodney*, *Collingwood*, *Nile*, *Trafalgar*, *Royal Sovereign*, *Royal Oak*, *Ramilles*, *Revolution*, *Repulse*, *Empress of India*, *Hood*, *Barfleur* (reconstructed 1903), *Centurion* (reconstructed 1903), and *Revenge*, which ships were built between 1875 and 1895. (See Fig. 2.)

By this time the method of loading guns adopted in this country and France as a standard type for turrets was recognized by the English as possessing many advantages. The English "fixed" loading positions not only took a great deal of time to train their guns for loading but also gave indication to the enemy when the guns were out of action and exposed a side view of them to the enemy's fire.

The criticisms against the English "fixed" loading position brought forth the design shown in sketch No. 3, which may be regarded as the second stage in the evolution of the modern English turret. In this design the natural conservative spirit is shown in the retention of the fixed loading position, while at the same time it was supplemented by a central ammunition tube revolving with the turret and through which the cordite could be hoisted from the magazine handling room direct through the turret floor. A number of explosive shell were carried in the turret, and a number of charges of cordite were stored in pockets in the turret floor. By this means a limited number of rounds could be fired at any point in the arc of train, and cordite could be supplied through the central loading tube when the supply required replenishing. Also when the supply of shell in the turret was exhausted, it was necessary to train to the old "fixed" loading position to replenish it. It will be seen at a glance that this was a compromise, but it is interesting as showing the process of evolution by which the "fixed" loading position was finally abandoned. This design of turret was placed in only a limited number of ships (7) of the *Majestic* class, built between 1895 and 1898 and included the *Magnificent*, *Mars*, *Hannibal*, *Jupiter*, *Victoria*, and *Prince George*. (Fig. 3.)

The next step is shown in fig. 4, which was placed in five vessels of the *Canopus* class—the *Caesar*, *Illustrious*, *Ocean*, and *Goliath*—built between 1897 and 1900. This design abandoned the fixed loading position and in a natural mechanical evolution attached the upper part of the fixed loading hoist to the revolving part of the turret and used this portion of the hoist in connection with the central tube hoist. This resulted in what was called a relay chamber or a working room beneath the turret platform, where the ammunition

was transferred from the lower hoist to the upper hoist. This arrangement has also recently been designated as "The two-stage hoist." In these ships it did not prove entirely satisfactory due to hand loading and detail arrangements.

The next mechanical development toward simplicity would naturally result in a combination of the upper and lower hoists into one single hoist, and this we actually find to be the case, as shown in fig. 5, which was installed in the English battle ships *Glory* and *Albion*, built in 1901, and in several foreign ships built by Armstrong and Company. This design shows the ammunition hoist enclosed in a trunk leading from the handling room abreast the magazine direct to the breech of the gun. This design of turret is characterized by a writer in a recent number of the *Naval and Military Record* as "The cleverest piece of workmanship and design that had yet been seen in naval turrets, but the two ships as a whole were never a success." The ammunition was a long time going up the long hoist, and nothing was gained as expected.

The next design was installed in the English ships *Centurion*, *Barfleur*, and *Renown* in 1903. It was a return to the *Canopus* type of 1900 with a relay chamber beneath the gun making the two-stage hoist. Steam and electricity were introduced as part of the motive power.

Following these vessels came the nine vessels of the *Formidable* class, completed between 1902 and 1904. These also had the *Canopus* type of turret with a 4° loading position supplemented by a 1° hand-loading position and a chain-folding rammer.

The four vessels of the *Prince of Wales* class, 1902-1904, had a similar type of turret, but a further improvement was made by the introduction of a rammer that enabled loading to take place at any angle of elevation as well as any angle of train.

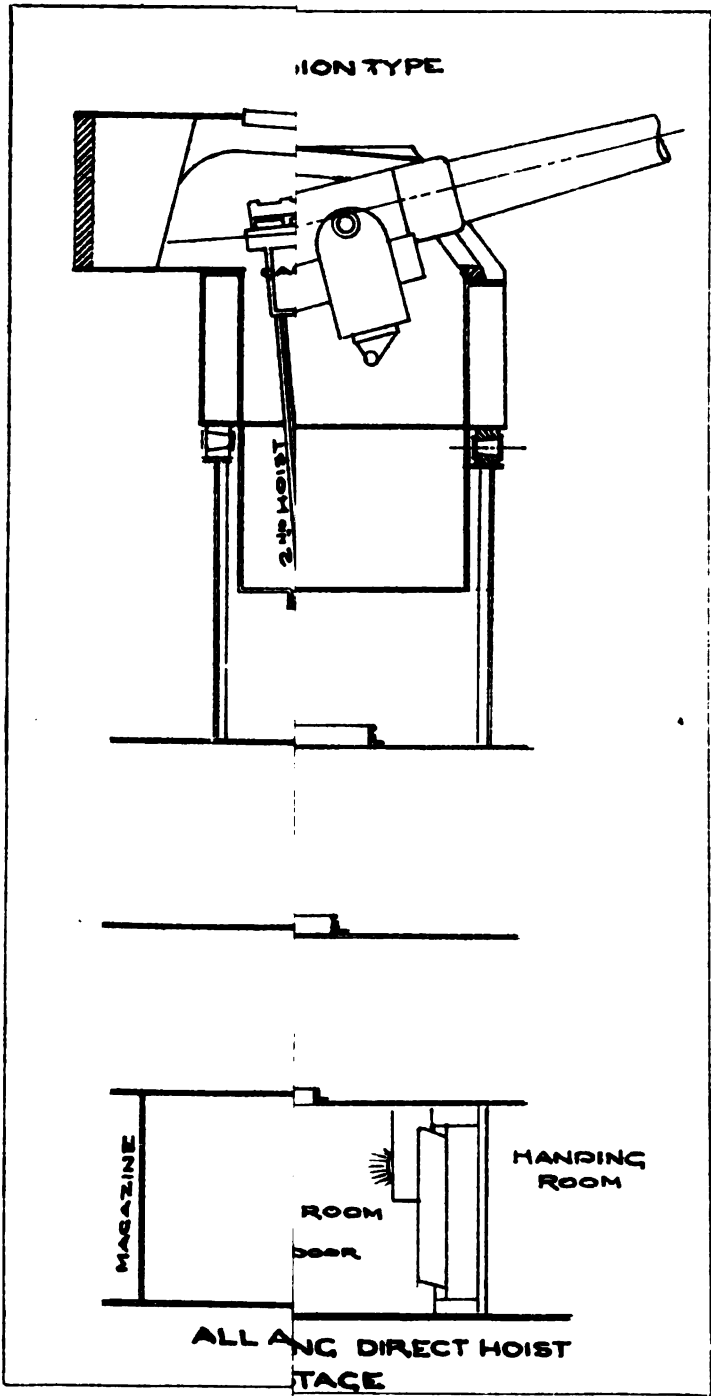
In 1904 the *Triumph* and *Swiftsure* were completed in England. Their 10-inch turret mounts had central ammunition supply from the handling room direct to breech of gun. The design is similar in all important respects to that of the American turret design, except that the guns can be loaded at any angle of elevation.

The eight vessels of the *King Edward VII* class of 1905-6 and subsequent vessels have 12-inch turrets of the *Canopus* type of 1900 with improvements in details, some having a chain rammer enabling the guns to be loaded at any angle of elevation as well as at any angle of train. This has become the standard type of the English 12-inch turret mount and is shown in fig. 6.

ENGLISH TURRETS FOR 9.2-INCH GUNS AND LESS.

The turrets for all English guns less than 12-inch, such as 9.2-inch, 7.5-inch and 6-inch guns, differ materially from the turret designs described above. With these guns the English employ an ammunition hoist running from the shell room or handling room abreast the magazine direct to the turret.

The first 9.2-inch turrets of this general character were installed on the *Powerful* and *Terrible* in 1898. The shells were carried in bins underneath the floor of the turntable. "The cordite was supplied by means of a central trunk which revolved with the turntable"



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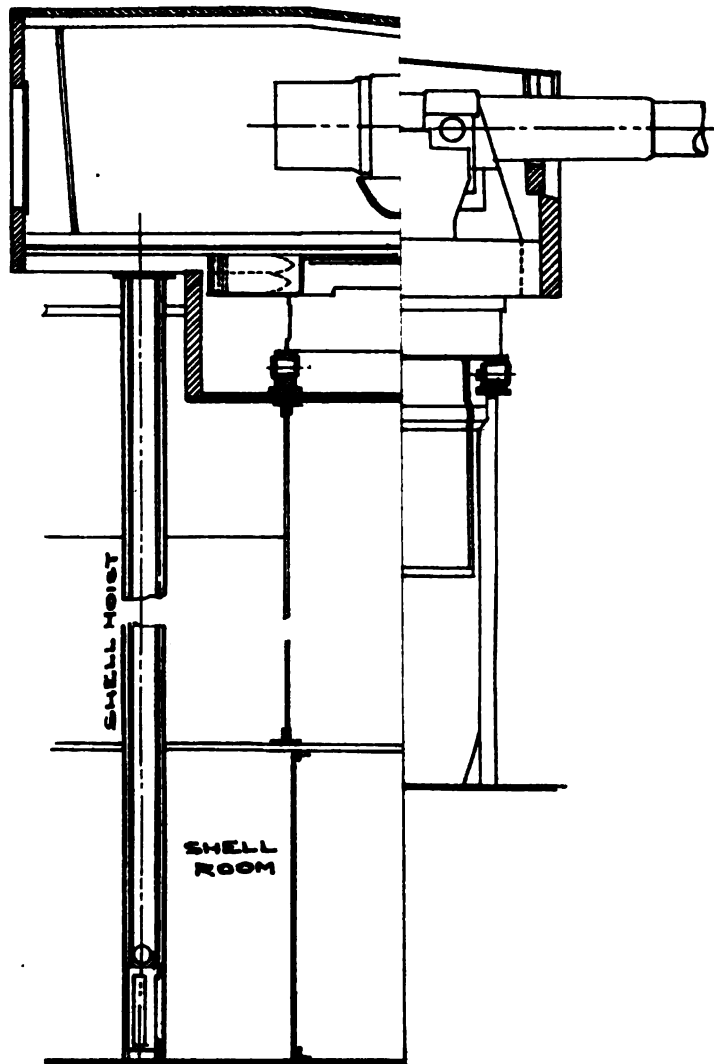
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The *Cressy*, *Aboukir*, *Good Hope*, *Leviathan*, and *Drake* of 1903-4 carried two single 9.2-inch guns on Armstrong mounts. A "shell carrier was provided as in the *Powerful*," and "hoists provided means of replenishing the shell bins, when necessary, and cordite was supplied by a central hoist direct to the gun from the magazine."

The *Hogue*, *King Alfred*, *Bacchanate*, *Euryalus*, and *Sutlej*, 1902-3, had mounts built by Vickers and were practically the same as the *Cressy* class above. It is illustrated in fig. 7, where is shown the manner of conveying the powder direct to the turret through a central revolving tube, the projectiles stored under the turret floor, and the independent shell hoist for renewing the supply.

The ten ships of the *Lancaster* class 1903-4 had 6-inch twin turret mounts with electric control. "A traveling bay underneath the floor of the turntable carried 150 projectiles and the supply of cordite was by a dredger hoist working direct from the magazine."

The six vessels of the *Devonshire* class 1904-5 carry four single 7.5-inch turrets. "The shell is carried in bins underneath the turntable floor, and cordite is supplied by hydraulically worked central tube." "Vertical tubes outside the turret for sending up additional shell direct from the shell room."

The six vessels of the *Duke of Edinburgh* class 1905-1908 carry six single 9.2-inch turrets and four single 7.5-inch turrets. They are similar turrets to the above as shown in fig. 7. This is the general standard type of mount (*Hogue* type of 1902) in the English navy on board both battle ships and cruisers for guns of this caliber.

FRENCH TURRET DESIGN.

The turret mounting for heavy guns in the French navy is very similar to that of the American design. In general the turret is carried on a truncated cone revolving on a pivot in the handling room, or the turret may be supported on roller bearings beneath the bar-bette. The ammunition is hoisted through this central cone or tube from the magazine compartment direct to the gun in the turret similar to the arrangement employed by us. A typical French design for heavy guns is shown in fig. 8. In turrets for smaller caliber guns the arrangements are somewhat different, and the Naval Annual of 1901 states that the English 9.2-inch turret (*Hogue* type) is practically the same mount as used in the French navy for many years.

In other cases the smaller turrets have a ready ammunition supply in a relay chamber beneath the gun supplied by a central hoist. The ammunition is passed by hand hoist through scuttles in the turret floor to load the gun.

Some of the more modern French turrets, instead of having the ammunition go direct to the breech of the gun, as shown in the sketch, have it delivered direct from the handling room to the turret at the side of the gun, from which position it is carried around the gun to rear and loaded by hand. Mr. Canet, the eminent French ordnance officer, stated in a recent lecture:

The typical English practice as regards ammunition hoists is to make them in two sections, the lower to bring the ammunition from the magazine to a relay chamber, where it is taken upward again to the gun by another hoist. This system allows of a more rapid firing, as there is a large supply of ammunition under the gun; besides, there is less danger in the case of a shell bursting in the turret. Hence it appears bet-

ter than the use of a single hoist direct from the magazine, as is the custom in French battle ships. * * * The turrets for the ships now building will embody all the improvements I have noticed above, such as relay chambers loading in any position and duplicate sights, so that the rate of fire may be raised to two rounds per minute.

In some of the secondary turrets the base of the hoist is completely unmasked, going down into the handling room at quite a distance from the magazine very much like our own system. In some modern cases the ammunition hoist for other guns is undefended at the base, although going directly in the middle of the magazine. It is customary in the French service to carry a few rounds of ammunition in the turret. This was also formerly a practice in some classes of English ships, but it appears that the present custom of the English is to carry shells only in the turrets or underneath the turret floor.

TURRET DESIGNS OF OTHER COUNTRIES.

In ship construction and design of naval vessels nearly all secondary powers have followed the practice of the English or French, in which countries most of their ships have been built. The Japanese have in general followed the English and the Russians have followed both the English and French. The latest English design of Vickers's turret mounting is almost an exact duplicate of the American design of turret having direct one-stage ammunition hoist, spring return, with electric power throughout for handling and control. (See fig. 9, from "Engineering," Mar. 22, 1907.)

SUMMARY.

Reviewing the practice of the different naval powers in respect to the design of turrets and the method of supplying ammunition, it will be seen that the differences are not radical departures from any general idea but refer principally to the detail mechanical arrangements. In all there exists an armored revolving gun platform to which ammunition is conveyed from the powder magazine and shell room on the lowest deck directly beneath the guns. Hydraulic, steam, pneumatic, electric or hand power may be used to perform the various operations connected with serving the gun. Partitions, doors, and flaps separate the magazine from the turret over the route of the powder in its passage to the gun.

In this last respect the difference which has recently attracted most attention is that between the direct open-shaft ammunition hoist of the American turret and the two stage closed-shaft hoist of the English 12-inch turret with their safety arrangements.

Taking the practice in the English Navy we find there are two standard types of turret mounts, one with a two-stage hoist and the other with a direct hoist.

The two-stage hoist is applied to about 56 turrets on battle ships mounting 12-inch guns.

The direct hoist is applied to 8 turrets on battle ships mounting 12-inch guns, and to 18 turrets mounting 9.2-inch guns, and to about 136 turrets on armored cruisers mounting 9.2-inch guns or less—that is, a total in the British navy of 162 turrets fitted with direct, as against 56 fitted with the two-stage hoist.

In all other navies the direct hoist is most frequently installed.

In regard to the safety of the magazine it would appear from this practice that the question of a one or two stage hoist is immaterial.

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Safety more directly depends upon the number and security of door protection or flaps and the isolation of the powder in transit.

The English adopted their two-stage hoist because they found by practical experience it gave greater rapidity of loading and the question of safety did not enter into the discussion at the time of its adoption. In both types of English turrets the safety devices would appear to be equally effective whether with a broken hoist or direct hoist. To insure equal rapidity the broken hoist requires more charges of powder to be en route between magazine and gun and in case of accident the confined space of the relay chamber and inclosed trunk would cause the powder to burn with greater violence than with more open arrangements. The closed trunk of the direct hoist would also confine the gases more and requires the doors and flaps to be effective. The English practice of carrying a large number of explosive shell within the turret has not heretofore been adopted in this country, nor that of carrying an emergency or ready supply of powder within the turret floor or relay chamber, as practiced in some designs of foreign ships.

After an examination of the designs of turrets in foreign navies it can not be said that the practice abroad in general is any safer than that in this country, and if the great majority of foreign turrets were to be subjected to four such severe ordeals as ours have passed through it is difficult to say that they would have fared any better or even as well.

There remains no question, however, but that effective screens should be interposed to isolate the powder charge after passing out of the magazine and whether we adopt the more complicated two-stage English hoist to gain rapidity or adhere to the simpler direct hoist of American design, it is independent of the question of safety devices which can be made equally effective for both.

AMMUNITION HOISTS.

Of each of the battle ships of the Navy now in commission and building it is known that at the time of their design the ammunition hoists were fully able to supply more than the quantity of ammunition then considered necessary for the most effective use of the guns under battle conditions.

Within the past few years the rapidity of gun fire has undergone a most surprising increase, and in consequence in some of our ships the ammunition hoists are by reason of their earlier design unequal to the demands now required to supply the guns under the conditions laid down for conducting our present system of target practice, which may be considered in the main as theoretical and misleading and not in the least likely to be met with in war. The apparent deficiency in the supply by the present hoists as shown under target-practice conditions would, however, not be by any means so great in battle as is apparently considered by some of the critics, as it is extremely doubtful if in actual fighting as much ammunition would be required or could be used as is now the case under present target-practice firing. As an instance of the very marked change in times in seconds between fires of the various calibers of guns which were considered good and effective firing by the Department between the years 1897 and 1903, when compared with the rapidity of fire as shown by the same calibers of guns in the

record target practice held during the year 1907, the following table may be interesting:

Department's instructions relative to target practice, July 22, 1897.

	[Time allowed between fires.]	Seconds.
13-inch B. L. R.....		320
12-inch B. L. R.....		300
10-inch B. L. R.....		240
8-inch B. L. R.....		120
6-inch B. L. R.....		90
5-inch B. L. R.....		70
4-inch B. L. R.....		60
6-inch R. F.....		40
5-inch R. F.....		25
4-inch R. F.....		20
6-pounder.....		12
3-pounder.....		10

Results obtained at record target practice, 1907.

	[Time between fires.]	Seconds.
13-inch (Alabama class).....		40
13-inch (Indiana class).....		51
12-inch (Maine class).....		45
12-inch (Iowa class).....		51
8-inch (Colorado class).....		24
8-inch (Kearsarge class).....		30
8-inch (Indiana class).....		32
8-inch (Iowa class).....		33
6-inch 50 caliber.....		7.9
6-inch 40 caliber.....		8.2
5-inch 40 caliber.....		5.5
3-inch 50 caliber.....		4.8
6-pounder semiautomatic.....		3.9
6-pounder rapid fire.....		5.2
3-pounder.....		5.0

From the above table it will be easily seen that ammunition hoists fully capable of meeting all demands anticipated at the time of their design a few years since may not now be capable, nor could they reasonably be expected to be capable of supplying the largely increased demand (an increase of from five to eight fold) made upon them by the surprising development of rapidity of gun fire. It is expected that recently designed and coming designs of hoists will fully meet present demands, but it is quite probable that the development of the next few years may render designs now equal to all demands liable to the same faults the critics observe in our earlier designs—that is, unequal to meet a future unknown increased requirement. In some of the ships necessary changes have already been made to bring the hoists up to the present requirements and it is hoped, as circumstances permit vessels to be withdrawn temporarily from service, the remaining hoists may be changed to meet the increased demands.

IN AND OUT TURNING SCREWS.

Until 1895 it had been the practice in our Navy to build all twin-screw ships with out-turning screws, notwithstanding the fact that other navies, noticeably the British, had for some time been designing vessels with in-turning screws. Experiments were carried out, and after much research the conclusion was reached that the in-turning

screws gave a slight gain in speed without loss in maneuvering qualities so long as the vessels were under way; but with no way on, the in-turning were not quite so efficient as out-turning screws. The arrangement of the machinery in vessels fitted with in-turning screws, however, was considered more desirable. The advantages were supposed to be somewhat in favor of the in-turning, and in 1895 they were adopted for some of our vessels. Since then there have been constructed 7 battle ships, 8 armored cruisers, 6 cruisers, 2 gunboats, 12 torpedo-boat destroyers, 7 torpedo boats, and 4 monitors having in-turning screws.

After considerable trial and further experiment with the vessels built with in-turning screws it was decided that their supposed advantages did not compensate for the disadvantage of maneuvering when in squadron and under certain other circumstances, and the Department on April 15, 1903, decided to design all future vessels with out-turning screws; and furthermore, to change from in to out turning screws all vessels then building, provided the condition of the work on vessels under construction permitted this to be done without excessive cost. All of our vessels designed since April, 1903, have out-turning screws.

THE "KEARSARGE" AND "KENTUCKY."

The act of Congress of March 2, 1895, authorized the construction of two "seagoing coast-line battle ships," subsequently named the *Kearsarge* and *Kentucky*. These ships were to be larger and more powerful than any of their predecessors, the *Indiana*, *Massachusetts*, *Oregon*, and *Iowa*.

The records of the Department show that during the preparation of the plans for these vessels the opinions of many officers of high professional standing were sought on the various military and other features involved; and it is believed that the designs, at the time of their approval, twelve years ago, embodied as far as practicable all the improvements and best ideas relative to battle ships then known.

Among other new features introduced into these two ships was an improved method of controlling the recoil of the heavy 13-inch turret guns. In previous vessels this recoil had been checked by two hydraulic cylinders located under the gun. This system had not given satisfaction. A new type of carriage was designed having four recoil cylinders, two on top and two below the gun, but the center of oscillation of the gun itself was necessarily changed so that the distance between it and the side of the turret was about 14 inches greater than before. This change necessitated a somewhat larger port opening, in order that full elevation and depression might be given the guns. In all cases it had been customary to provide for a clearance of 1 inch on either side and above and below the gun and its port when the former was at extreme elevation or depression.

At the time of the design of the *Kearsarge* the port area was known to be slightly greater than that of previous ships, and was fully considered and recognized as a disadvantage, but was thought to be more than compensated for by the advantages derived from the new type of mount and also by the knowledge that a chance shell entering the port and damaging a recoil cylinder would not—as in all previous turret mounts—put the gun out of action, as the remaining two or three recoil cylinders would still be sufficient to push the

gun back into the firing position, which is not the case in prior battle ships, where the gun might be completely disabled by a small fragment of shell or perhaps even by a shock rupturing one or more of the several hydraulic or steam pipes operating the gun.

For the reasons above stated, in addition to others, the best opinion inclined to the view that the turrets of the *Kearsage* and *Kentucky* were, notwithstanding the increased areas of their ports, much more reliable and effective for heavy gun service than those of any of their predecessors. This view is fully borne out by the twelve years of excellent service performed by these guns, and they are still efficient weapons.

It has been stated that "the openings above and below the guns in the turrets of these ships are 10 feet square." If this were the case the exposed area would be 100 square feet. As a matter of fact it is by actual measurement 9.12 square feet.

The accompanying sketch, drawn to scale, shows the outside face of the 13-inch turret gun ports of the *Indiana*, *Iowa*, *Kearsarge*, and *Alabama* classes of battle ships, and represents the actual appearance of the turret ports with the guns level, the hatched portion being the section of the gun at the outer face of the port. It will be seen that the relative sizes of the areas exposed to hostile shot do not differ so greatly in varying types of ships, as some critics would have the public believe. In the case of the *Iowa* the guns are 12-inch instead of 13-inch and the range of elevation is only 13° instead of 15° as in the other types, which accounts for her turret openings being smaller than the others shown in the drawings.

The chances that even one heavy shell would enter the space above the port in action are very remote indeed; but the phenomenal advance made during the past few years in rapidity and accuracy of fire of the intermediate and secondary batteries of warships has accentuated the recognized importance of reducing the port area to a minimum and of providing a suitable protection. Steps were taken to accomplish this result in 1903; and all vessels completed since the beginning of 1904 (except four cruisers of the *Colorado* class, having 8-inch guns) have been fitted with shutters or shields as shown in the sketches following page 24. Similar protection is to be fitted to the older vessels when circumstances permit of their being withdrawn from service sufficiently long enough to enable the change to be completed.

As has been previously stated, there was probably more discussion over the preliminary designs for battle ships Nos. 5 and 6 (*Kearsarge* and *Kentucky*) than over any others which have been built for our Navy. The general questions of the battery, armor, speed, etc., were fully discussed. The proposition to use superposed turrets was novel and the views of many officers were sought. The relative merits of the 12-inch and 13-inch guns were duly considered, and the caliber of the intermediate battery was fixed at 5 inches, because that was considered the largest that could use "fixed" ammunition, then deemed essential to any gun deserving the name of "rapid fire." Whether these 5-inch guns should be mounted in pairs in small turrets, or be boxed in, or simply separated from one another by splinter bulkheads, was fully argued, and conclusions reached only after mature deliberation.

It is worthy of note that at the time these vessels were built our Navy was still using brown powder in its heavy guns, and on account

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of the residue left after firing it was necessary to sponge out the bore of the gun after each round. Accordingly the Chief of the Bureau of Ordnance stated that the rate of fire of the batteries of these vessels would be as follows: 13-inch guns, one shot every 300 seconds; 8-inch guns, one shot every 120 seconds; 5-inch guns, one shot every 20 seconds.

The guns and mounts were designed to meet these requirements.

At the recent target practice the maximum rate of fire for the guns of the *Kearsarge* was given as follows: 13-inch guns, one shot every 35.5 seconds; 8-inch guns, one shot every 22.9 seconds; 5-inch guns, one shot every 4.24 seconds.

The adoption of smokeless powder did away with the necessity for sponging out the guns after firing, as it left no residue in the bore, and hence it became possible to greatly increase the rapidity of fire. This powder also gave increased velocity, and consequently greater range and penetration to the projectiles, and by the adoption of new sights increased accuracy of fire has been obtained; but the guns, being shorter than those of more recent construction, are much less powerful. While the offensive powers of these vessels have been greatly improved, the defensive qualities still remain the same as when the ships were designed, nor can they well be changed until the vessels are withdrawn from active service for a general overhauling and remodeling.

It is claimed that these vessels are "not fit for service in battle line against really modern vessels." No one would claim that these ships could engage in battle on terms of equality with the most modern battle ships, as they are inferior in size, armor, and armament to the latest vessels of our own and foreign navies, and to assert otherwise would be tantamount to denying that there had been any progress made in the art of battle-ship building for twelve years. No commander would hesitate to take these vessels into a fleet action, and it can not for a moment be believed but that, with their heavy battery of 13 and 8 inch guns and good armor protection, they would give an excellent account of themselves, not only against ships of about their own date of design, but also against any other vessel falling within the range of their guns. They are good and effective ships, but we do not claim they are as efficient as more recent vessels.

GENERAL NOTES.

Criticisms have been frequently made of the fact that a few of our large vessels are not fitted with automobile torpedoes, and at the present time it is recognized that the absence of these torpedoes is somewhat of a disadvantage. At the time of the design of the large vessels, which are not fitted with torpedoes, the question of the advisability of giving them a torpedo outfit received careful and thorough discussion and consideration, and the outfit was omitted for what were deemed very good and sufficient reasons. At the time these vessels were designed (from about 1900 to 1902) the torpedo had an effective range of about 1,000 to 1,200 yards, and it was not expected that hostile ships would engage in action within that distance, the torpedo became a weapon of secondary importance, and it was not thought that the installation of this comparatively secondary weapon in large vessels would longer justify the assignment of the necessary space, which could be used to so much more effective military purpose otherwise. As late as 1905 a most distinguished

admiral of the British navy, writing of the use of the torpedo during the naval operations of the campaign of 1904, in the war between Japan and Russia, stated:

It is not too much to say that experience of the late campaign, confirming as it does the arguments of students of tactics in these days of long-range guns, justifies a demand that torpedoes should be withdrawn from the armament of cruisers and battle ships.

Since our large cruisers and battle ships not fitted with torpedoes were designed the effective range of the torpedo has undergone a great increase, and it is now claimed to be efficient up to 4,000 yards. This improvement has rendered them again, as in former days, a weapon to be reckoned with, and consequently we readopted them, and all our large vessels designed since this improvement carry torpedoes, as do also all of the other vessels originally so designed wherever it has been practicable to so rearrange their underwater space as to enable the tubes and accessories to be installed.

It may be stated that our policy of temporarily abandoning the torpedo for battle ships and armored cruisers when it failed to keep pace with what was considered battle range for guns, and again taking it up when improvements made it once more a useful and effective weapon within the battle ranges, was not different from the policy pursued by foreign navies.

Referring to some of the criticisms recently appearing in print, it may be stated in general terms that in our Navy sighting hoods were put on turrets, because no other practicable way of pointing the guns effectively existed. No criticism, however, seems to have been made by the critics to the fact that all other navies with turreted ships follow the same system, and for the same reason as ourselves.

The test of battle only will decide a suitable type of conning tower. As experience is gained the towers of our ships are modified, so far as possible, to meet the conditions required, and towers for ships building are designed in accordance with the latest reliable data. Changes of form, etc., have not been adopted simply because some foreign designers have evolved a novelty but because it was not apparent that they were sufficiently superior to our own to justify such change until it had been demonstrated by actual test that they possessed merit. But we have never hesitated to adopt an idea that promised increased efficiency.

It is not advisable to adopt as fulfilling service requirements ideas evolved solely from the results of target practice, as such may be in many respects misleading. Ships fight in the open, rolling sea, at fast and varying speeds, constantly changing ranges, with always some pitching or rolling motion, and requiring for efficient sighting a large field of view for the gun pointer, much of whose light is shut off by reason of his protected position behind armor, and who fires at a target the speed and direction of which may be also constantly changing; whereas at target practice it is the invariable custom to choose a smooth sea, ideal weather conditions the firing ship moves at a fixed speed, and fires at a stationary target generally at a known range; only one ship fires at a time, and be it remembered, with no shots striking or coming toward the firing ship to disconcert or excite the men pointing the guns. Battle conditions (that is, conditions under which we are likely to fight) should be the criterion and not the ideal conditions selected for target practice.

It is noted that in one of the criticisms recently made in a printed article the author refers, in condemning the heights of our broadside batteries, to the disadvantage these guns would work under in an engagement where the enemy is to windward, and states that the leeward position is to be sought inasmuch as the ship so situated is clear of her own smoke. The "weather gauge" was a primary advantage in the days of sailing ships and its advantage over the lee is greater to-day than this critic seems to think. It is doubtful if any captain would select the leeward position, and particularly so if there was any sea running, as most probably would be the case. Modern gunpowder gives out little or no smoke, and therefore the great advantage claimed by the critic above referred to falls; but instead, the leeward ship has the greater and more important disadvantage of the smoke from his antagonist's funnels and of flying spray and moisture obscuring the glass of the telescopes which will seriously interfere with the aiming and firing of the guns. The question of the direction of the sun is also one of much importance, and if it is a case of choice of windward position with the sun at his back or leeward position with the sun in his face, there is little doubt but that the critic above referred to would change his views. Practical experience is the best of all teachers, and it requires this as well as study to discuss professional matters, otherwise in advocating a small and perhaps unimportant advantage sight may be lost of the several more weighty and overmatching disadvantages.

The question of the selection of an efficient or satisfactory range finder is one that we have been struggling with for years, and the fact of its not having been developed is due not to any lack of human effort or ingenuity. Other nations have experienced the same difficulty. Our ships are now supplied with the best range finder thus far known. The main difficulty lies in the physical impracticability, at the present stage of human knowledge, of being able to measure trigonometrically a distance of several miles from the necessarily short base line possible to be had on board the measuring ship. Many of the greatest minds of the world have been engaged on this problem for years, but unfortunately with no great success up to the present day.

To the claim that we have no means of handling a fleet in a fog, it may be said that at the present stage of human knowledge it will always be a difficult problem to properly handle a fleet in a fog and in this respect our Navy does not differ from others. We are possibly neither behind nor ahead of other nations in this respect. When nature permits us to see through a fog or science develops a means of penetrating its cloud, we can hope to overcome this difficulty, but until then we will, like all other human beings, be compelled to struggle with the problem.

The international regulations for preventing collisions at sea which have been enacted by Congress into law require that the steam whistle or siren shall be so placed that its sound will not be intercepted by any obstruction, and consequently our steam whistles and sirens, in compliance with this law, are placed forward of the smoke pipes. While it might be undoubtedly more convenient and less trying upon the hearing of the officer of the deck if the whistle were placed abaft the smokestack, yet so long as the law remains as at present we can not place the whistle where its sound will be obstructed.

In a recently published magazine article severe criticisms were made regarding accidents (the dates of which were specifically stated) which have happened in the turrets of three of our battle ships, and it was claimed that notwithstanding these accidents, prior unfortunate experiences, and of the recommendations and reports of various officers thereon, nothing was done to remedy the defects complained of. It is inconceivable that a person would jeopardize his reputation for veracity by making such specific statements upon matters of the character referred to without verifying his data or satisfying himself as to the reliability and trustworthiness of the source from which his information was obtained.

The official records of the Department amply and clearly disprove the statements made as to nothing having been done to remedy the defects alleged to exist in our direct leading ammunition hoists, as prior to the unfortunate accident on board the *Missouri* in April, 1904, both the Bureaus of Ordnance and Construction and Repair had endeavored to obtain a satisfactory form of shutter doors designed to close the opening in the turret floors after the passage of the ammunition cars to the guns. A design developed at the Washington Navy-Yard in March and April of 1904 was authorized to be constructed with a view to its application to the turrets of the *Virginia* class of battle ships then under construction, as well as to all other vessels as far as practicable. Before, however, this shutter, which was attached to the ammunition hoist rails, was completed, a satisfactory shutter attached to the turret itself was perfected and has since been applied in all turrets.

As early as January, 1904, the Bureau of Ordnance took up the matter of the design of a two-stage ammunition hoist with a company well known as manufacturers of ordnance and ordnance material, in connection with a model subsequently exhibited by them at the World's Fair, St. Louis. Every effort was made to put an ammunition hoist of this type in the U. S. S. *New Hampshire*, and contracts were actually made in August, 1905. It was found, however, that the design was too heavy, involving a total increase of structural weight of the turrets of more than 150 tons, and that it could not be installed without greatly exceeding the weights allowed for ordnance outfit.

Modifications of this type of hoist were subsequently made, by which its weight was greatly reduced, and the adoption of this hoist, or a hoist of similar nature, was determined upon by the board on construction prior to the accident on the *Georgia*. The report of the special turret board simply confirmed the action of the board on construction, but was not received until months after the type of turret above referred to had been decided upon; and did not therefore cause the adoption of the turret, as has been claimed by the incorrectly informed persons alluded to.

It is needless to add that all criticisms made from time to time concerning any detail of our ships which have reached the board on construction have received its careful attention and consideration; whether the criticism was important and well based or whether it was, as the majority have proved to be, lacking in merit, no difference was made in taking them up, for all have been carefully weighed. When the conditions and circumstances seemed to merit action by the board such has been invariably taken.

To criticise is human nature, and men interested in a subject or its development are generally much given to making suggestions or criticisms regarding changes which in their opinions would be improvements. Particularly is this the case where little or no responsibility lies with the critic, and perhaps more so even when one has a professional interest in the subject under consideration. To the person, however, charged with the responsibility of the adoption of the changes suggested by the critics, and particularly so where such changes may seriously affect the public welfare and involve the expenditure of large sums of Government money, it is only natural that he, having this great responsibility, should require that the advantages claimed for the alterations be satisfactorily proved before the time, labor, and money necessary to carry out the suggested ideas are expended. This very proper requirement is in many cases resented by critics, some of whom are prone to publish their grievances because of the not immediate acceptance of their ideas, and to claim that inventions and improvements are not adopted as they should be, that those in authority are too conservative, and to make various other allegations.

If such critics were to investigate they might find that in many cases their own ideas were not entirely original, that perhaps others had been working along the same or similar lines and had perhaps evolved a more completed project, or even, perhaps, that experiment had proved their schemes not suitable for naval purposes. It is this question of investigating and demonstrating the usefulness of an invention, suggested change, or alteration, before adoption and before authorizing the expenditure of large sums of public money which protects the Government but at the same time affords the critic, who has no responsibility toward the country, the opportunity so many avail themselves of, to criticise unfavorably and perhaps unjustly the person upon whom the direct responsibility for the protection of the interests of the Government really lies, and who, insofar as the Navy is concerned, and about whom I feel qualified to speak, are faithful to their trust.

In concluding this report, which has been made after a thorough consideration of the defects known, as well as claimed to exist in the battleships of our Navy, and using the most reliable and authentic data obtainable, the following facts may be regarded as established:

Battle drills.—In recent years our Navy has paid much attention to war drills and exercises, and the tendency has been to continue to increase and widen our experience in this respect. These drills have been, however, necessarily carried out with the limited number of ships available which unfortunately did not make a homogeneous fleet, but now, with sixteen practically similar battle ships in commission, we hope to gain great advantages from the continuation of the battle fleet drills begun with those ships last year as soon as the fleet could be withdrawn from the Jamestown Exposition.

Freeboard of our ships.—Examination of the plans and other reliable data concerning our own and foreign ships of the same date of design shows clearly that in the matter of freeboard we compare, with the exception of the *Indiana* and *Kentucky* classes (the first built battle ships of the Navy), most favorably. With reference to the British and Japanese battle ships, which have given good results under service conditions, our vessels have in the main more freeboard,

and in the instances where they exceed us it is only by such few inches as may be, for any practical advantages, ignored.

Height of gun positions.—Here again, excepting the *Indiana* and *Kentucky* classes, our ships carry their forward turret guns generally as high or even higher above water than similar ships of the British and Japanese navies, and in the heights above water of guns firing on the broadside we are noticeably in the lead. Everything considered our gun heights are amply sufficient to meet the necessities of battle, second to those of no other nation in effectiveness, and can be used efficiently in any sea fighting in which naval actions are at all likely to take place.

Armor.—A comparison of the height of armor belts of our ships with those of foreign ships of same date of design, shows that in general our armor belt is somewhat higher above water, and furthermore that the armor of our ships is usually thicker and fully as well distributed both above as well as below the water line. In the matter of the main armor belt, about which much criticism has appeared, when our ships are brought into actual combat we have nothing to fear from any alleged superiority of foreign vessels of the same date of design.

Turret designs.—The turret designs of our ships are in the main very similar to those of the French and to the great majority of ships of the British and Japanese navies. The general arrangement of the magazines about a "handling room" into which the ammunition hoist leads, is also similar in all navies. The dangers which we, and others, have principally to contend with are those of liability to flare back at the breech of the gun and the accidental ignition of grains of powder. The remedy is twofold: by preventing the escape of all gas from the breech of the gun into the turret; and, second, by the interposition of partitions or screens fitted with doors and flaps along the route of the powder charges from the handling rooms to the gun, by which means the flame from the burning grains would be prevented from coming in contact with the powder in transit. Devices to accomplish both of these results have been installed in our ships. The advantages of the two-stage ammunition hoist in the matter of safety are not manifest, nor have they been fully established over the straight lead hoist which we have heretofore used in our service. We are in our latest designed ships installing the two-stage hoist, primarily because it affords a more rapid supply of ammunition to the guns, but its adoption as our future standard has not yet been decided upon.

Supply of ammunition.—It may be stated with certainty that no navy has as yet ammunition hoists capable of supplying ammunition to the guns at the rate called for by our modern target practice conditions; nor will the guns, in all probability, in action require ammunition at those rates. Our hoists are not inferior to those of foreign ships, and with the changes to be made or already made in them will meet all the necessities of our ships.

In and out turning screws.—We built some vessels with in-turning screws, because of their supposed advantages and because also foreign navies with larger experience were doing the same. We ceased building such vessels when we had satisfied ourselves that the advantages were supposed rather than real.

The Kearsarge and Kentucky.—The exposed openings of the gun ports of these vessels are recognized as being larger than desirable.

The two ships, however, are efficient and serviceable vessels and are in no sense of the word the failures some persons have alleged. The enlarged port area was a necessity due to improvement in the efficiency of the gun mounts and was but a small factor of disadvantage when compared with the several advantages which made the guns of those two ships superior as weapons of war to any which we had theretofore constructed. These two ships were, however, designed more than twelve years ago and do not, of course, embody all the improvements of up-to-date ships, and on this account it is the intention to give them a general overhauling as soon as the funds are available.

Torpedoes.—At the present time our supply of torpedoes is less than it should be. This fault, however, is due to the inability of our manufacturers to build them and not to any lack of effort upon the part of the Navy to procure a sufficiency. It is hoped in the near future this present difficulty may be overcome. The output of torpedoes will be materially increased by the torpedo factory now building at the Naval Station, Newport, R. I., and which will soon be in full operation.

Gun sights and range finders.—In these respects our ships are in no manner second to those of other navies.

Finally.—Our ships are not inferior to those in foreign services. We have made compromises in our designs of battle ships, because it is impossible to construct a perfect battle ship; such compromises have, perhaps, detracted from the desired perfect ship in some respect, but at the same time have made it possible to improve upon some other existing disadvantages, and, on the whole, the compromises, each and all, have tended toward a nearer approach to the desired perfect finality. Other nations have labored and will, like ourselves, continue to labor under this same difficulty in endeavoring to approach as near as possible to that impossibility—a perfect battle ship. In making compromises in the building of our ships, I am satisfied that in every instance all concerned in the work have acted honestly and patriotically, and only with the desire to produce the best ship possible. The result has been in each case, ship by ship and year by year, an improvement upon all that have preceded, and no ship has been built by us inferior to those of any nation designed at the same time.

The quality of the matériel of our Navy is inferior to none; in quantity of vessels alone are we lacking. With an increase in number of ships the American Navy will have been supplied the only feature necessary to make it second to none in all that tends toward fighting efficiency, and when the stress of actual combat, if such should ever unfortunately come, brings the only really practical test, our country need have no misgivings or fear but that our battle ships will give an excellent account of themselves and prove themselves all that we have designed them for and know them to be.

Very respectfully,

G. A. CONVERSE,
Rear-Admiral, U. S. Navy (Retired).

THE SECRETARY OF THE NAVY.

[No. 25.]

COMMITTEE ON NAVAL AFFAIRS.

Friday, February 14, 1908.

**JOINT COMMISSION UPON A SITE FOR A DRY
DOCK AND REPAIRING STATION.**

**STATEMENTS OF MR. JOHN P. SANBORN, MR. FRANK F. NOLAN,
AND MR. EDWARD S. RAWSON, OF NEWPORT, R. I.**

[H. R. 10570, Sixtieth Congress, first session.]

A BILL Providing for the appointment of a joint commission to report to Congress on a site for a dry dock and repairing station.

Be it enacted by the Senate and House of Representatives of the United States in Congress assembled, That the President is hereby requested to appoint a joint commission, consisting of three officers of the United States Navy and two officers of the Corps of Engineers, United States Army, to consider and report to Congress, through the Secretary of the Navy, as to the necessity for the construction, at a suitable strategic point upon the Atlantic coast, of a dry dock and repair station of sufficient capacity to accommodate the largest ships, present and prospective, at any time of tide and at any season of the year.

Mr. BATES. This bill (H. R. 10570) introduced by Mr. Granger, is before our subcommittee. Mr. Sanborn, we will hear you.

Mr. SANBORN. Of course, gentlemen, we are interested in this, as you might say, only indirectly. We believe that there is a great necessity for a larger dry dock somewhere on the Atlantic coast. I think it is a fact, as you gentlemen know as well as I, that there is no dry dock at present on the entire Atlantic coast capable of docking one of our largest war vessels. A 20,000-ton vessel could not be docked at present in any of our dry docks. As we are building more war vessels, and larger ones, too, it seemed to us, who are interested largely in naval matters, that there is a strong necessity for a new dry dock somewhere on the Atlantic coast; and that is why we are here particularly—to have this commission appointed to make an examination in the first place.

We believe of course, also, that after this examination is made they will think Narragansett Bay is practically the best place on the coast for such a dry dock. We have a harbor large enough to float all of the navies of the world. It needs no dredging; we have 40 feet of water almost anywhere, so that no dredging will be required. We have every facility for building a dry dock there; nature has done everything that could be done. Narragansett Bay is really the key to all the rest of New England as well as the key to New York. In case of invasion or a foreign war of any kind of course the enemy would try to make lodgment in Narragansett Bay first as a starting point to bring their force against the city of New York as well as Boston and other cities.

Mr. BATES. What particular point on Narragansett Bay do you favor?

Mr. SANBORN. We favor no particular point. There are half a dozen good points that could be utilized. Of course on the shore of the bay, near the coaling station that they have built, there is ample water, plenty of room, and the Government owns plenty of land, all the land they will need. The coaling station is now located at the town of Portsmouth, R. I. We are not speaking particularly for Newport, but we are speaking for the bay—anywhere in Narragansett Bay where this commission think would be the best place—and we are not directly speaking for that. We believe in having this dry dock somewhere on the coast, and we believe this is simply a movement to have a proper investigation made by the proper authorities, and to report upon the desirability and practicability, and at the same time as to the most feasible place for it. Of course, feeling that Narragansett Bay should be selected for it, we are more anxious than perhaps we would otherwise be for the bill to go through. Admiral Luce, who is really the father of the naval training station at Newport, and also the father of the War College, has done more, probably, than any other one man. He is keeping in close touch with the growth and the wants of the Navy, present and prospective, and he is very anxious in regard to this bill, because he believes that it is something that we have got to have.

We all know that the Brooklyn Navy-Yard and the dry dock there could not dock one of our 20,000-ton ships; it would be impossible. We know, too, that the Brooklyn Navy-Yard is so crowded that they can not enlarge it to any great extent. I think the people of New York themselves, if they had their own way, would just as soon have that land that the navy-yard occupies for other purposes. But of course we have nothing to say about that. What we believe is that on the north Atlantic coast, and in Narragansett Bay, is the one spot selected by nature for the great dry dock of the future, and we believe that if this bill should pass now it would give the gentlemen a chance to make a thorough investigation of those needs. It will be the starting point toward getting a dry dock some time in the future which the Government has got to have.

Mr. BATES. Do you mean to say that you think the dry docks that are now provided at the different navy-yards on the Atlantic coast—Norfolk, Philadelphia, Boston, and Portsmouth—are not sufficient?

Mr. SANBORN. I think you will find by an inspection that there is not a dry dock on the Atlantic coast that could dock to-day a 20,000-ton battle ship.

Mr. BATES. Under its own steam?

Mr. SANBORN. Under its own steam, without material enlargement.

Mr. THOMAS. Will you not have this to contend with: That while no doubt this would be a very desirable place for a dry dock—no question about that—yet the fact of there being no navy-yard there will work against it?

Mr. SANBORN. Of course a navy-yard is not required with a dry dock necessarily. A dry dock is for specific purposes, for the docking and the repair of these naval vessels. But sufficiently large repair shops are all that would be required in addition to the dry dock. Of course the navy-yard has a vast amount of other business besides that. If there would be suitable repair shops, that would be

all required in that direction. The dry dock is really an institution that is, to a certain extent, separate from the navy-yard.

Mr. THOMAS. But that would be the beginning of a repair plant, a good dry dock, or a good place for docking vessels. Possibly we have been unfortunate in selecting the sites in the past; but we have built up these immense navy-yards, and I think possibly it will occur to many members that a dry dock should be built at one of these large navy-yards or repair stations.

Mr. SANBORN. One of the difficulties that you will run against there will be this: For instance, to make the Brooklyn Navy-Yard dry dock sufficiently large for the use of the Navy in the future would be more expensive than it would be to build an entirely new dry dock at a less expensive locality. The vicinity of the Brooklyn Navy-Yard is so congested that it would be almost impossible for the Navy to secure additional territory to enlarge their plant there so as to make it suitable for the uses of the two; so that it would be cheaper for the Government—and I think that will be proved—to build an entirely new dry dock in a different location than to attempt to enlarge the works you already have. So it could be said, too, I think, of the Charleston Navy-Yard. Of course there might be something said about the difficulty at Portsmouth; the fact that they can not get in there, the harbor not being sufficient. The obstructions in that harbor are too great for the entrance of the vessels of the world.

Mr. THOMAS. I am simply mentioning this that you may understand the feeling about navy-yards. A good many feel that we have too many navy-yards at present on the Atlantic coast.

Mr. RAWSON. I believe that, too.

Mr. THOMAS. If the Charlestown Navy-Yard is not well located I would be in favor of moving it to some point where it could be established to good advantage and where a dry dock could be built; but you will find that there will be a lot of opposition to that.

Mr. SANBORN. You could not move the navy-yard; that would be impossible at the present time.

Mr. THOMAS. It means that this plan contemplates going ahead on something that we are rather opposed to—that is, the extension of navy-yards. We are trying to cut them down, if it is possible.

Mr. SANBORN. This does not, of course, contemplate a navy-yard at present, but it contemplates simply a dry dock for a specific purpose. All of the vessels of the navy go to Narragansett Bay, and we have the biggest coaling station there is on the coast.

Mr. GREGG. What location are you referring to?

Mr. SANBORN. Narragansett Bay, right in the Portsmouth coaling station, or somewhere in the bay. There are a dozen different sites that could be selected.

Mr. GREGG. How far would they be from any other navy-yard?

Mr. SANBORN. The Boston Navy-Yard would probably be the nearest and that would be about 75 miles, at least.

Mr. GREGG. We have a navy-yard from between 60 and 75 miles from there, have we not?

Mr. SANBORN. Of course the Boston Navy-Yard is one of the old navy-yards, and in all of these old navy-yards there is no room for growth. Of course the Portsmouth Navy-Yard, which is at Kittery, Me.—it is called the Portsmouth Navy-Yard, but it is in

Maine—they could not get in there to dock a war vessel if they wanted to. It is impossible, so that would be out of the question. The Boston Navy-Yard is in a congested portion of that territory and you could not enlarge it. There is no room there. Neither could that be done in the case of the Brooklyn Navy-Yard. They all have their full growth, and none of them have a dry dock large enough to dock the biggest war vessels. If we are going to build these enormous war vessels we have got to have some place where we can dock them. In Narragansett Bay we have established the largest coaling station on the Atlantic coast, and every one of the vessels in the Pacific Fleet had to go there to coal up. They not only went there, but also the torpedo vessels. All came there to coal before starting on their cruise to the Pacific.

Now that we have started such large vessels, it seems to me that it would be cheaper for the Government to continue the work in Narragansett Bay, where the water is so deep and where no dredging will be required. We can float the navies of the world there. It is a strategic point of great value in case of an attack by an enemy, and if an enemy were to make an attack it would be made there, although we have the fortifications to protect it. We have a chance there to build a dry dock that can not be surpassed anywhere in the world.

Mr. RAWSON. As you see, we do not make application directly for a dry dock, but simply for a competent commission, feeling that they will investigate; recognize these facts, and report them so strongly that it would not be necessary to go directly to the subject at this time, but merely to have it started in that way.

Mr. SANBORN. This bill of Mr. Granger's, as Mr. Rawson says, asks for no location, but simply for the appointment of a joint commission to inquire into the feasibility, and it is a fair and harmless bill in that line.

Mr. BATES. If such a commission were created, they could recommend a dry dock at a new point, or they could recommend it at one of the points now used as a navy-yard or repair station or coaling station.

Mr. SANBORN. What we say, Mr. Chairman, in regard to Newport and Narragansett Bay is simply incidental. We do not claim that this bill demands that location, by any means.

Mr. GREGG. Where do we dock our largest vessels now?

Mr. SANBORN. The Brooklyn yard has the largest dock at the present time.

Mr. GREGG. I thought you said that they could not dock the largest ones there?

Mr. SANBORN. I was referring to our prospective war vessels, the 20,000-ton vessels. We are building much larger vessels, and in a few years from now they will be in greater numbers. I do not know that we have a single 20,000-ton vessel at the present time, but we are building them, and when those vessels are done it will be impossible to dock them with our present docking facilities. That is the situation.

Mr. THOMAS. We have a dock partly completed, have we not?

Mr. BATES. Yes, at Philadelphia.

Mr. THOMAS. That will accommodate a 20,000-ton vessel, will it not?

Mr. BATES. That will accommodate the *Delaware* and *North Dakota*.

Mr. RAWSON. Our passenger boats are up to 40,000 tons, and I think it is simply a question of time, within the next ten years, when they will materially increase the naval ships.

Mr. BATES. No doubt. There was a proposition made and recommended by the committee this year that there be a 22,000-ton battle ship, but it is the prevailing opinion that we should have four sister ships of the *Delaware* type, and that was the reason of no increase in size. But in another year it may be done, or at least within a few years.

Mr. THOMAS. This commission will have to go a little further and practically condemn some of these other navy-yards; for instance, they will say that the Brooklyn, the Portsmouth, and the Boston yard are not well located to take care of our future large boats; that is what it means.

Mr. RAWSON. The natural increase at Newport will be considerable in other naval lines. They have the training station there now, and the number of new men required to man the new ships will probably result in an enlargement of the training station that will make a tremendous naval center there. And in the same way probably this coaling station will be enlarged. With these two things we have felt that it would almost necessitate enough expenditure to build a navy-yard. It would probably make a large center there. The Cape Cod canal, which would have been started this year if it had not been for the financial flurry, would practically make Narragansett Bay the strategic point on the Atlantic coast, both on account of the ease in transferring the fleet from there up through the inland waterway to Massachusetts Bay, if necessary, and further down through the Sound to New York Harbor.

Mr. SANBORN. But in this bill there is nothing said about locating anywhere, and the bill of itself seems to me to be simply a bill to investigate this question.

Mr. GREGG. That is true so far as the terms of the bill is concerned, but we will want some idea as to what is really in prospect; what is thought of. Of course I know that this bill was not introduced by anybody for the purpose of having any general surveys made, but it was introduced for the purpose of getting it at some particular place.

Mr. NOLAN. Gentlemen, I concur in what Mr. Sanborn has said, and I only want to say that we have down at Newport quite a number of naval officers who have given this subject considerable study, and have made a mental survey of the surroundings in Narragansett Bay as compared with other navy-yards, and they feel that that is an ideal spot, along the bay in some place, to build a dry dock of such magnitude as is required by the future ships built by the Government. And, of course, acting on that suggestion, as they look at it, and from a patriotic standpoint—not from any personal pride or anything of that kind, or for local attachment for Newport—they believe that to be the best place. Taking into consideration also the increase in the naval armament at Newport at present, they feel that no better spot could be selected than some place along that bay to build a dry dock. Of course, as the other gentlemen have stated, a repair shop will necessarily follow. But if the condition of things is such amongst the other navy-yards as at present, that they are

not of adequate size and their facilities are not sufficient, that ought not to deter Congress going ahead and doing what it ought to do under the circumstances. No harm can come from the investigation by the commission. If what these officers say really exists, that it is necessary to condemn some of these old navy-yards built years ago and when the Government was not the size that it is at present, I hope Congress will have the courage to do it. Of course I know that there would be considerable resistance, but nevertheless in the progress of time everything has to go that is of no use.

That is the position we take in the matter. I do not say that this recommendation is altogether altruistic. We would like to have a dry dock, we would like to have it built on the coast because we think it is a benefit to the Government, and it would be of inestimable benefit to Newport.

Mr. SANBORN. We are a little selfish in this matter, I suppose, but at the same time we can get nothing unless Narragansett Bay is the best place. This commission of course would be an impartial commission; they have got to investigate, to see, and to report. We feel so well satisfied that that is the best location that perhaps we can get a favorable report, but that is not one way or the other. We think the bill ought to pass so that the investigation may be started and early action secured.

Mr. BATES. Have you any further statements to make, gentlemen?

Mr. RAWSON. I think the situation has been pretty well covered, and that the points that seem to us to be of any material bearing upon the opinions or the views of the committee have been stated. We thought we could come here, and if there were any questions or suggestions to be made by the members of the committee we could perhaps answer them and make the whole matter clearer than is set forth simply by the wording of the bill.

Mr. BATES. I think, gentlemen, you have made the matter very clear.

Mr. SANBORN. We are very much obliged for this hearing.

[No. 26.]

NAVY DEPARTMENT,
Washington, December 7, 1907.

BLASTING IN FRONT OF QUAY WALL—DEPARTMENT LETTER.

SIR: Referring to the annual estimates of the Bureau of Yards and Docks, for the navy-yard, Portsmouth, N. H., for the fiscal year 1909, the sum of \$60,000 was submitted by the Bureau for the purpose of blasting in front of the quay wall. The Department, unaware that the appropriation act of March 2, 1907 (34 Stat. L., 1186), while making appropriation for \$50,000, authorized a total cost of \$110,000, cut the estimate for the coming fiscal year from the amount submitted to \$30,000. It is now found that contract has already been entered into for this work, and that in order to complete it within the contract time, which expires July, 1908, it will be necessary to make the full appropriation of \$60,000. It is therefore requested that you cause this item of the estimates, as submitted to Congress, to be changed from \$30,000 to \$60,000. (See Book of Estimates, p. 248.)

Very respectfully,

V. H. METCALF,
Secretary.

Hon. GEORGE E. FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives.*

(635)

[No. 27.]

NAVY DEPARTMENT,
Washington, December 16, 1907.

**CLERICAL ASSISTANTS FOR RECORDING COURT PROCEEDINGS—
DEPARTMENT LETTER.**

SIR: The attention of the committee is invited to the fact that at the navy-yards at Boston, New York, League Island, Norfolk, and Mare Island, where general courts-martial are constantly maintained, great difficulty is experienced in obtaining the necessary clerical assistance for recording the court proceedings. At present it is customary to call one or the other of the departments of the yard to detail a clerk for this work, and as none of such departments can spare an employee for the purpose without detriment to its own business, annoyance and delay are encountered, often to a serious extent, in obtaining clerks for the courts at said yards.

The Department has the honor, therefore, to request that the following language be inserted in the estimate for "Pay of the Navy:"

After the clause "two clerks to general inspectors of pay corps and clerk to pay officer in charge of deserters' rolls," insert "clerk for general court-martial and board duty in the office of the commandant at each of the following navy-yards, viz: Boston, New York, League Island, Norfolk, and Mare Island, at a salary of \$1,200 per annum." The total estimate for "Pay of the Navy" should be increased, if these clerks are allowed, by \$6,000, making the total estimate \$26,092,201.

Very respectfully,

TRUMAN H. NEWBERRY,
Acting Secretary.

CHAIRMAN OF THE COMMITTEE ON NAVAL AFFAIRS,
House of Representatives, Washington, D. C.

[No. 28.]

**NAVY DEPARTMENT,
Washington, December 17, 1907.**

**AUTHORIZING SECRETARY OF THE NAVY TO UTILIZE ALL
AMMUNITION AND OTHER SUPPLIES ALREADY ON HAND.—
DEPARTMENT LETTER.**

SIR: For many years it was the practice of the Bureau of Ordnance to include in its estimates for appropriations under the heading "Increase of the Navy, * * * Armor and armament," amounts necessary for the purchase of ammunition and other supplies for new ships. At the last session of Congress, however, this practice was discontinued and, instead, the following item inserted under the heading "Ordnance and ordnance stores" (see naval appropriation act of March 2, 1907, 34 Stat., 1180): "Ammunition and other supplies for new ships, \$750,000."

The Bureau of Ordnance now reports that, with the old system of appropriating separately for ammunition for increase of the Navy and that for general issue to ships in commission, it has accumulated, under "Armor and armament," ammunition "somewhat in excess of that required for the outfits of the ships remaining to be supplied under this appropriation;" that "it is now desirable to use this as a floating supply to replace ammunition that should be withdrawn from ships in order that it may be brought up to date;" and further, that much of this ammunition is already prepared and should be issued promptly to prevent deterioration.

The Bureau of Supplies and Accounts, in commenting upon the matter, says:

It appears that, for various reasons as stated in the attached letter, ammunition and other supplies have been accumulated under "Increase of the Navy, armor and armament" for future use; while, in the last appropriation act, Congress has provided that such stores shall be purchased from "Ordnance and ordnance stores." In view of this change of method of procuring ammunition, etc., for new vessels, it would be extremely desirable to have the ammunition now on hand turned over from account "B" (Increase of the Navy) to account "A" (General stock).

In view of the foregoing, I have the honor to request that, if the committee deem it appropriate, the matter be brought to the attention of Congress with the recommendation that the Secretary of the Navy be authorized to utilize the ammunition and other supplies now on hand under the appropriation "Increase of the Navy, * * * Armor and armament," for general issue to ships in commission, as though purchased from the appropriation "Ordnance and ordnance stores" for the fiscal year ending June 30, 1908.

For the convenience of the committee there is inclosed the draft of a joint resolution which it is thought would accomplish the purpose intended.

Very respectfully,

TRUMAN H. NEWBERRY,
Acting Secretary.

HON. GEORGE EDMUND FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives.*

JOINT RESOLUTION To authorize the Secretary of the Navy to expend all ammunition and other supplies on hand under the appropriation "Increase of the Navy" for general issue to ships in commission.

*Resolved by the Senate and House of Representatives of the United States of America in Congress assembled, That the Secretary of the Navy is hereby authorized to utilize all ammunition and other supplies already on hand under the appropriation "Increase of the Navy * * * Armor and armament," for general issue to ships in commission, as though purchased from the appropriation "Ordnance and ordnance stores" for the fiscal year ending June thirtieth, nineteen hundred and eight.*

[No. 29.]

NAVY DEPARTMENT,
Washington, January 6, 1908.

ARMOR AND ARMAMENT—DEPARTMENT LETTER.

SIR: I have the honor to inclose herewith for the information of the Committee on Naval Affairs of the House of Representatives, in connection with the estimates of the Bureau of Ordnance under the caption "Increase of the Navy, armor and armament" for the fiscal year ending June 30, 1909, a copy of a letter dated the 2d instant from the Chief of the Bureau of Ordnance, in which he calls attention to the fact that the balance available on January 1 under the appropriation "Increase of the Navy, armor and armament" was approximately \$3,500,000, which is about sufficient for three and one-half months' payments, and that it will be necessary to ask Congress for an additional \$2,000,000 to carry on the work during the balance of the present fiscal year with the diligence and expedition necessary to have the ordnance outfits in readiness when required for installation.

The Department, after careful consideration, decided that it was not advisable to ask for an urgent deficiency appropriation to meet the conditions above referred to. The matter, however, is submitted to the Committee on Naval Affairs with the request for consideration and such action in the premises as may be deemed proper.

Very respectfully,

V. H. METCALF, *Secretary.*

Hon. GEORGE E. FOSS, M. C.,
Chairman Committee on Naval Affairs,
House of Representatives, Washington, D. C.

DEPARTMENT OF THE NAVY,
BUREAU OF ORDNANCE,
Washington, D. C., January 2, 1908.

SIR: Referring to Department's memorandum of the 20th ultimo, requesting a statement of urgent deficiency estimates:

1. The Bureau desires to call the Department's attention to its letter No. 19800, of January 29, 1907, relative to appropriation "Increase of the Navy, armor and armament," as follows:

Referring to H. R. Bill 24925 Report No. 6713) making appropriation for the naval service for the fiscal year ending June 30, 1908, and for other purposes.

(1) The Bureau invites attention to page 81, lines 3 to 17: Inasmuch as the bill as reported authorizes the construction of an additional first-class battle ship, similar in all essential characteristics, and additional to the battle ship authorized by the act making appropriations for the naval service for the fiscal year ending June 30, 1907; and two torpedo-boat destroyers, this increase will make it necessary to increase the amount appropriated in the naval bill, page 83, lines 15 to 17, under the heading "Armor and armament," from \$9,000,000 to \$12,000,000, the \$3,000,000 additional being for commencing work on the extra battle ship and the two new destroyers.

(2) It is urgently recommended that this matter be brought to the attention of Congress, as the amount is absolutely necessary for the purpose mentioned.

2. It has been necessary to proceed with ordnance work on the additional vessels therein referred to, which were authorized by the last Congress, in addition to work on outfits for vessels previously authorized. As a consequence the Bureau finds that its appropriation of \$10,000,000 will be inadequate to meet the necessary payments during the remainder of the present fiscal year. The balance available on January 1 was approximately \$3,500,000, which is about sufficient for three and one-half months' payments. It will therefore be necessary to ask Congress for the additional \$2,000,000 to carry on the work with the diligence and expedition necessary to have the ordnance outfits in readiness when required for installation. This bears out the Bureau's prediction in the letter above referred to, when it asked that \$12,000,000 be appropriated and Congress reduced the amount to \$10,000,000.

3. It is impracticable to meet this deficiency by holding up bills and paying them after July 1, as was done a year ago, owing to the relatively greater amount of the deficiency due to the failure of Congress to appropriate the amount estimated to be necessary for the current fiscal year and the further fact that the estimate for next year is so much less than for some years past and is barely sufficient to meet the estimated requirements for the fiscal year 1909.

4. Furthermore, as this appropriation is made "*toward* the armor and armament" of vessels authorized, and the work must progress as rapidly as facilities will permit, it is not practicable to determine so far in advance as when the estimates are made up the exact amount that will be necessary to meet payments during the year, nor to govern the expenditures during the year as in the case of other specific appropriations. The aim of the Bureau has always been to estimate as closely as possible under this appropriation, even though this will sometimes result in a deficiency. In the present instance the Bureau's estimate of \$12,000,000 appears to be very near the amount actually required, and when Congress reduced this amount by \$2,000,000 and appropriated only \$10,000,000 for this fiscal year it practically created the deficiency which is the subject of this letter.

5. The Bureau desires to be informed by the Department whether this amount should be asked for as an urgent deficiency, as a general deficiency, or first submitted to the Committee on Naval Affairs when the estimates for the next fiscal year are under consideration. This last method was followed some years ago in securing an increase in estimates from \$14,000,000 to \$18,000,000. This is not a deficiency in the ordinary sense of the word, as Congress is already aware of the Bureau's prediction that \$12,000,000 would be necessary for this fiscal year, and the chairman of the Committee on Naval Affairs, in discussing the subject during the last session of Congress, requested that the matter be brought to its attention when the necessity for the additional amount became apparent.

Respectfully,

N. E. MASON,
Chief of Bureau of Ordnance.

The SECRETARY OF THE NAVY.

NAVY DEPARTMENT,
Washington, February 15, 1908.

SIR: Referring to the Department's letter of the 7th ultimo, calling attention to the necessity for \$2,000,000 additional under appropriation "Increase of the Navy, armor and armament" for the current fiscal year, and to your acknowledgment of the same under date of the 7th ultimo.

As the Department has heard nothing further from your committee on the subject, it begs leave to again bring it to your attention.

The Department understands that the \$2,000,000 referred to has not been included in the naval bill now under consideration, nor has it been put in the urgent deficiency bill, and if placed in the general deficiency bill it would not relieve present conditions.

The Department desires to especially emphasize the necessity for this additional amount and to state that it should be made *immediately available*, as this appropriation is running very low and will, in fact, be exhausted about the middle of April *at the present rate of expenditures*. If this additional \$2,000,000 be not appropriated in the near future and made immediately available, it will be necessary to suspend work at navy-yards and stations, as well as at private establishments, on the outfits of new vessels, and stop payments of bills until July 1, when the new appropriation becomes available, and borrow from this appropriation to settle the present deficiency, thus entailing a deficiency in next year's appropriation.

If, however, the Department makes a minimum allotment of funds to pay labor at navy-yards and stations to carry on work until July 1 next the balance available to pay bills will be exhausted about March 15 next, and it will then be necessary to suspend payment of all bills. It will readily be seen that this will unquestionably result in serious consequences, involving delays in the completion of vessels, followed by suits of contractors for damages, as well as suits for non-fulfillment of contract obligations. It is also pointed out that during the present financial depression and money stringency the nonpayment of bills for a period of over three months to many contractors would be disastrous and the effects far-reaching.

The Department can not too strongly urge that the committee take steps to have the \$2,000,000 appropriated at the earliest practicable moment.

Very respectfully,

V. H. METCALF,
Secretary of the Navy.

HON. GEORGE EDMUND FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives.*

[No. 30.]

NAVY DEPARTMENT,
Washington, D. C., January 29, 1908.

**EXPENDITURES OF LABOR AND MATERIAL, "POWER PLANT,"
AND "HEAT, LIGHT," ETC.—DEPARTMENT LETTER.**

SIR: In my hearing before the Naval Committee, under the head of "Maintenance," in explaining the increase asked for this year, you asked me, among other questions, the amount expended by other Bureaus at the different navy-yards for the operation of power plants which properly should be borne by the appropriation "Maintenance," but which it has not been possible to take up under that appropriation owing to insufficient funds appropriated. I answered that I would endeavor to get the information from the Paymaster-General, but that it would take some time to get it. Immediately after the hearing I asked the Paymaster-General to get me the information which you desired, and he stated that he could not procure it in a day or two because returns had not come in from all the yards for the quarter ending December 31, but that he would take the necessary steps to secure the expenditures under operations of the power plants for the first six months of the present fiscal year. This morning I am in receipt of the information, which I inclose herewith.

2. In this connection your attention is invited to the fact that there are other expenditures which should properly be borne by the appropriation "Maintenance," such as furniture for offices, teaming and transportation in navy-yards, janitor service, etc., but owing to insufficient funds it has not been possible to charge all the expenditures for this purpose to that appropriation, and other Bureaus have borne part of the expense. It is the intention of this Bureau, should Congress appropriate the necessary funds, to bear the expense of all service properly coming under the appropriation "Maintenance" during the next fiscal year. This should cause a corresponding reduction in the expenditures under the different Bureaus and a less expenditure on the part of the Government, because all of the expenditures would then be made under an appropriation of one Bureau, which would prevent anything in the way of duplication and should result in better management, owing to the fact that one Bureau would have entire charge of a certain class of work rather than several Bureaus undertaking to do practically the same thing.

3. I hope to send you in the course of two weeks the expenditures made by other Bureaus during the past six months for furniture for offices, janitor service, teaming and transportation in navy-yards, and such items properly coming under "Maintenance."

4. Prior to July 1, 1907, the system of accounting was such that it was doubtful if this information could have been gotten for your committee at all. The system of accounting put into effect on July 1 is such that the Paymaster-General is able to furnish this information, and the reason that he has not been able to furnish it more promptly is due primarily to two causes: First, that this is the first time that

this information has been called for. It is therefore naturally harder to get on short notice than if it was information which is regularly called for. Second, because it takes some time to receive the returns at the Bureau of Supplies and Accounts after the ending of the quarter, as a month has not yet elapsed since the ending of the second quarter of the fiscal year, and the returns have not yet all come in, even for the home yards. No attempt has been made to secure this information from the foreign stations, for the reason that their returns come in very much later than the home stations.

Very respectfully,

R. C. HALLYDAY, *Chief of Bureau.*

HON. GEORGE E. FOSS, M. C.,
House of Representatives, Washington, D. C.

Expenditures of labor and material under Title G, "Power plant" and "Heat, light," etc., during six months ending December 31, 1907.

	Yards and Docks.	Equipment.	Ordinance.	Construction and Repair.	Steam Engi- neering.	Supplies and Accounts.
Portsmouth:						
Labor	\$9,581.30	\$78.03		\$7,308.89	\$2,905.02	
Material	13,766.95			6,782.20	2,584.56	
Total	23,348.25	78.03		14,091.09	5,489.58	
Boston:						
Labor	12,000.26	7,138.62		16,201.81	9,216.71	
Material	26,987.44	1,952.83	\$43.09	16,636.22	4,695.51	
Total	38,987.70	9,091.45	43.09	32,838.03	13,912.22	
Torpedo Station:						
Labor		248.37	1,250.25			
Material			4,368.98			
Total		248.37	5,628.23			
New York:						
Labor	16,198.61	101.09	8,332.33	18,007.99	7,712.92	\$1,188.08
Material	26,291.09	1,384.12	5,104.53	* 26,000.00	* 16,000.00	
Total	42,489.70	1,485.21	13,436.86	44,007.99	23,712.92	1,188.08
League Island:						
Labor	12,454.51			527.76	118.20	
Material	26,910.75	7.00	410.46	176.99		
Total	39,365.26	7.00	410.46	704.75	118.20	
Washington:						
Labor	1,480.11		8,007.28	1,677.16		
Material	1,218.10		1,108.25	168.58		
Total	2,698.21		9,115.53	1,845.74		
Norfolk:						
Labor	17,367.60	1,157.56	219.52	3,012.97	3,363.67	
Material	28,494.66	433.20		4,079.30	4,858.65	
Total	45,862.26	1,600.76	219.52	7,092.27	8,222.32	
Pensacola:						
Labor	1,504.39	22.96		2,151.12	530.36	
Material	1,679.41	72.56	4.77	3,530.61	633.16	
Total	3,183.80	95.52	4.77	5,681.73	1,163.52	
Mare Island:						
Labor	6,033.52	782.17	1,738.96	6,278.09	5,335.45	
Material	12,867.29	671.10	402.04	8,240.44	1,642.68	
Total	18,900.81	1,453.27	2,141.00	14,518.53	6,978.13	
Puget Sound:						
Labor	5,732.64	123.84	109.76	5,714.51	1,623.53	
Material	9,858.11		225.57	5,440.13	1,266.96	
Total	15,590.75	123.84	335.33	11,154.64	2,890.49	
Grand total.	230,426.74	14,181.45	31,138.68	116,289.46	50,962.80	1,188.08

* Estimated for second quarter.

[No. 31.]

NAVY DEPARTMENT,
Bureau of Supplies and Accounts,
Washington, D. C., January 31, 1908.

"RESERVE POWDER AND SHELL" AND "RESERVE AMMUNITION"—DEPARTMENT LETTER.

MEMORANDUM SHOWING STATE OF APPROPRIATIONS "RESERVE POWDER AND SHELL,"
"RESERVE AMMUNITION."

"Reserve powder and shell."

Amount appropriated.....	\$2,000,000.00
Cash payments.....	960,003.53
Cash balance.....	1,039,996.47
Liabilities incurred, but unpaid	970,041.25
Available balance	69,955.22

In connection with the contracts under this appropriation now pending, the Bureau of Ordnance has made provision in its specifications which will enable it to make changes in the designs of articles that are not actually in course of manufacture. To take advantage of this provision (the object of which is to enable it to keep pace with developments and improvements) it is necessary to hold back a small amount from an appropriation of this nature in order that the cost of changes made in outstanding contracts may be covered. The available balance shown above will probably be utilized for the changes referred to. Any portion remaining will be expended as soon as all claims for extra compensation due to changes under contracts have been adjusted.

"Reserve ammunition."

Amount appropriated	\$4,000,000.00
Liabilities incurred, but unpaid (no cash expenditures)	3,093,904.40
Available balance	906,095.60

Of the unobligated amount above shown, about one-fourth must be held in reserve for a time for the reasons given above. The remainder will be expended for "Ammunition details," such as powder tanks, cartridge cases, fuses, primers, etc., most of which is Government work and will require no contracts.

E. B. ROGERS,
Paymaster-General, U. S. Navy.

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[No. 32.]

**NAVY DEPARTMENT,
Washington, February 19, 1908.**

INCREASE OF THE NAVY—DEPARTMENT LETTER.

SIR: 1. The Department understands that the Naval Committee of the House in submitting the naval bill for the action of the Committee of the Whole House will make provision for 2 battle ships of the U. S. S. *Delaware* class, 10 torpedo-boat destroyers of the type recently contracted for, and 8 submarines; and it is also understood that the Naval Committee has not included in the total amount appropriated for "Increase of the Navy" for the coming fiscal year the additional funds for undertaking the construction of these vessels during this coming fiscal year.

2. The plans for the battle ships and torpedo-boat destroyers above referred to are now ready and it will be entirely practicable to undertake their construction within three months after the passage of the act containing provision therefor, and the work can be pushed rapidly to completion.

3. It has been the Department's endeavor for some time past to increase the rapidity of construction of vessels for the Navy, and, if possible, to do away with the many delays caused by the nondelivery of material, especially in the matter of ordnance and armor, and without doubt contracts can be placed and the work commenced on the vessels very shortly after July 1 of this year.

4. For the information of the committee, I inclose herewith copies of letters from the chiefs of the Bureaus of Construction and Repair and Ordnance, giving the amounts necessary to be included in the forthcoming appropriation bill to cover payments during the fiscal year ending June 30, 1909. These letters are approved, and the Department considers that the estimates given therein are absolutely necessary for the best interests of the Navy, and earnestly request that the funds be appropriated for. If they are not, there will be a year's delay in ship construction and a shutting down of work at the shipyards and Government factories, as work on the vessels now under construction is rapidly approaching completion.

Respectfully,

V. H. METCALF, *Secretary.*

Hon. GEORGE EDMUND FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives, Washington, D. C.*

NAVY DEPARTMENT,
BUREAU OF CONSTRUCTION AND REPAIR,
Washington, D. C., February 18, 1908.

PROPOSED INCREASE IN ESTIMATES UNDER "INCREASE OF THE NAVY."

SIR: 1. It is reported that the Naval Committee of the House in submitting the naval bill for the action of the Committee of the Whole House will make provision for 2 battle ships of the type of the *Delaware*, and 10 torpedo-boat destroyers of the type of those recently contracted for, and 8 submarines. It also appears to be the intention not to include in the total amount appropriated for the "Increase of the Navy" additional money for undertaking the construction of these vessels during the next fiscal year. The plans for the battle ships and torpedo-boat destroyers above referred to are now ready and it will be entirely practicable to undertake their construction within three months after the passage of the act containing provision therefor.

2. Since the estimates previously submitted to Congress under the heading "Increase of the Navy, Construction and Machinery" followed the exact procedure of previous years and only included estimates to cover the continuance of work on new vessels already authorized, it will be necessary to provide in the forthcoming bill for such additional vessels as may be authorized therein—there being no prospective delay in the present instance in the preparation of plans for these vessels, the plans having, in all essential respects, been already developed—so that advertisement may be made and contract signed within a short period after the approval of the act of authorization.

3. It is therefore recommended that the estimates of appropriations under "Increase of the Navy, Construction and Machinery" already submitted be increased to the following extent for each of the following vessels which may be authorized:

For each battle ship of about 20,000 tons displacement, similar to the <i>Delaware</i>	\$1,500,000
For each torpedo-boat destroyer.....	400,000
For each submarine boat.....	250,000

The above estimates of amounts to be included for each battle ship, torpedo-boat destroyer, and submarine boat in the forthcoming appropriation bill are to cover payments to be made during the fiscal year ending June 30, 1909, and are based upon the following limits of cost, exclusive of armor and armament, these limits of cost being for the battle ship and torpedo-boat destroyer the same as those provided in the last annual appropriation bill:

Limit of cost under hull and machinery.

For 20,000-ton battle ship.....	\$6,000,000
For torpedo-boat destroyer.....	800,000
For submarine torpedo boat.....	360,000

Very respectfully,

(Signed) W. L. CAPPS,
Chief Constructor, U. S. N., Chief of Bureau.

The SECRETARY OF THE NAVY.

NAVY DEPARTMENT,
Washington, D. C., February 17, 1908.

1. The Bureau understands that Congress will appropriate for 2 battle ships of the U. S. S. *Delaware* class, 10 destroyers, and 8 submarine boats, but that the House committee in the bill has not provided funds for commencing work on these.

2. The Bureau, therefore, submits its estimates for the ordnance outfits of these vessels as follows:

Two battle ships:	
Armor (each).....	\$1,955,000
Armament (each).....	1,800,000
Ammunition (each).....	611,000
Total.....	4,366,000
Total for two	8,732,000
Ten destroyers, at \$100,000 each.....	1,000,000
Eight submarines, at \$25,000 each.....	200,000

Of which there will be *required during the fiscal year ending June 30, 1909:*

Armor.....	\$3,000,000
Armament.....	4,500,000
Total, "Armor and armament".....	7,500,000
"Ammunition and other supplies".....	100,000

This amount to be added to the amount already carried by the bill for "Ammunition and other supplies" under the appropriation "Ordnance and ordnance stores."

3. The Bureau's estimates are with the understanding that work on these vessels will be hurried to completion, owing to the small number of vessels now underway and consequent scarcity of work at navy-yards and private concerns, and to the fact that plans and specifications for the vessels are now ready, and further that most of the armor and armament will be delivered during the first year.

4. The Bureau wishes to point out that the above estimates are exclusive of the \$2,000,000 deficiency under appropriation "Increase of the Navy, armor and armament," to which the Department's attention has recently been called, which was caused by Congress failing to appropriate for that amount when the appropriation bill for the fiscal year 1907-8 was under consideration.

Respectfully,

(Signed) N. E. MASON,
Chief of Bureau of Ordnance.

SECRETARY OF THE NAVY.

[No. 33.]

NAVY DEPARTMENT,
Washington, February 14, 1908.

**TO PROTECT THE UNIFORM OF THE NAVAL AND MILITARY
SERVICE OF THE UNITED STATES—DEPARTMENT LETTER.**

SIR: The Department transmits herewith for your consideration a bill "to protect the uniform of the naval and military service of the United States."

The purpose of the bill is, first, to prevent the wearing of the uniform by unauthorized persons, and, second, to provide that the persons who are entitled to wear it shall not be subjected to unjust discrimination on shore. As appears from many protests received by the Department, both of these undesirable practices are now prevalent, and the need for legislative action is, therefore, real and urgent.

The constitutionality of the third section, in so far as concerns discrimination against the uniform in the various States, has been carefully considered by the Department, and it has been decided to submit the bill as it now stands with the recommendation that it be given favorable consideration by the committee. The enactment of the bill as at present drawn would have a salutary effect throughout the country, even though the penalties imposed by it for discrimination against the uniform should be held not to apply outside of the Territories and the District of Columbia.

Very respectfully,

V. H. METCALF,
Secretary.

HON. GEORGE EDMUND FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives.*

A BILL To protect the uniform of the naval and military service of the United States.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That from and after the passage of this act it shall be unlawful for any person not actually serving at the time in the Regular Army, Navy, or Marine Corps to wear the prescribed uniform or any distinctive part of the uniform thereof, except as hereinafter provided; and every violator of this section shall, upon conviction thereof in any court of the United States of competent jurisdiction, be fined not less than fifty dollars nor more than one hundred dollars or shall be imprisoned for not less than ten days nor more than thirty days, or shall suffer both such fine and such imprisonment in the discretion of said court: *Provided,* That this prohibition and penalty shall not apply to the organized land or naval militia, while on duty, or to such persons in the service of the United States as are or may be required, by or in pursuance of law, to wear a prescribed uniform similar in design to that of the Army, Navy, or Marine Corps: *And provided further,* That the Secretary of War or the Secretary of the Navy may, in his discretion, grant written permission in special cases for members of reputable theatrical companies or others to wear such uniform for a stated period and under such restrictions as he may prescribe, and this permission shall be withdrawn if at any time the Secretary of War or the Secretary of the Navy may deem such action expedient.

SEC. 2. That an enlisted man discharged for any cause other than his own unworthiness shall be privileged to wear the uniform of his last rating until four months after the date of said discharge: *Provided*, That when an enlisted man is discharged in consequence of his own unworthiness all distinctively uniform articles of clothing in his possession shall become the property of the United States, the value thereof to be credited to his account and suitable civilian apparel furnished him, under regulations to be prescribed by the Secretary of War and the Secretary of the Navy, respectively.

SEC. 3. That any common carrier, innkeeper, or proprietor of a place of public entertainment or amusement of any kind or description, or any agent, servant or representative of any such common carrier, innkeeper, or proprietor as aforesaid, who shall willfully neglect or refuse to furnish to any enlisted men of the Army, Navy, or Marine Corps of the United States wearing the uniform thereof as provided in his case by law or regulation duly made, any form of accommodation, provision, or service which the said common carrier, innkeeper, or proprietor as aforesaid is, at the time of application therefor by such enlisted man in uniform as aforesaid, prepared to furnish for compensation as such common carrier, innkeeper, or proprietor to a male person in good health, shall be deemed guilty of a misdemeanor, and upon conviction thereof in any court of the United States of competent jurisdiction, shall be fined not less than fifty nor more than one thousand dollars, or shall be imprisoned for not less than thirty days nor more than eighteen months, or shall suffer both such fine and such imprisonment in the discretion of said court: *Provided*, That the enlisted man aforesaid, at the time of so applying for such accommodation, provision, or service as aforesaid, shall be sober and orderly, and able and willing to pay for the same in accordance with the rates fixed therefor by the said common carrier, innkeeper, or proprietor of a place of public entertainment or amusement when the like accommodation, provision, or service is applied for by civilians.

SEC. 4. That all acts and parts of acts inconsistent with this act be, and the same are hereby, repealed.

[No. 34.]

NAVY DEPARTMENT,
Washington, February 13, 1908.

**TO INCREASE EFFICIENCY OF FLEET BY MATERIAL DECREASE
IN EXPENDITURE OF COAL—DEPARTMENT LETTER.**

SIR: The Department forwards herewith copy of a letter received from the commander in chief of the United States Atlantic Fleet, relative to a plan which has for its object the increase of efficiency of vessels of the fleet by a material decrease in the expenditure of coal.

The Department concurs in the views expressed by the commander in chief and has to state that while the proposed plan apparently involves an additional expenditure of \$2,500, on the other hand the considerable saving in the consumption of coal will more than offset the amount of money to be expended in cash prizes.

The Department requests that the following clause be added to the Naval appropriation bill under the heading, "Coal and transportation:"

Provided, That of this amount not more than \$2,500 may be expended by the Secretary of the Navy, under such rules and regulations as he may establish, for prizes to be awarded vessels for economy in the expenditure of coal.

Very respectfully,

TRUMAN H. NEWBERRY,
Acting Secretary.

HON. GEORGE E. FOSS, M. C.,
Chairman House Naval Committee.

[The Commander in Chief, United States Atlantic Fleet, U. S. S. *Connecticut*.]

RIO DE JANEIRO, BRAZIL, *January 13, 1908.*

SIR: 1. I desire to bring to the attention of the Department the necessity for doing something to increase the efficiency in performance of the motive machinery of our ships of war, both as to economy, speed, and to prevent minor breakdowns.

2. The performance of the ships of this fleet as to economy of steaming at moderate speeds has so far been very eccentric and unsatisfactory, showing serious lack of training of personnel, and, in my opinion, it is absolutely necessary that steps should be taken to increase the interest and knowledge shown by officers and men in this whole subject. To do this no better method can be devised, to my mind, than to adopt some method of competition similar to that which has worked so well in advancing the performance of ships in gunnery.

3. With this in view, I have put in force in this fleet an order (Fleet General Order No. 2, of January 13, 1908), of which a copy is inclosed, from which I hope excellent results will be quickly obtained.

While most of the provisions of this order can be carried out within the fleet, the Department's action is absolutely necessary in establishing the rewards so necessary to the success of the venture. These rewards are suggested as of two classes, so far as they are beyond the powers of the commander in chief to grant, and they will be here discussed in succession.

4. Cash prizes should be established as follows:

Best battle ship or armored cruiser in—	
Atlantic Fleet, yearly.....	\$1,000
Pacific Fleet, yearly.....	1,000
Best torpedo-boat destroyer in—	
Atlantic Fleet, yearly.....	200
Pacific Fleet, yearly.....	200
Total yearly.....	2,400

5. A memorandum is inclosed showing the proposed general method of distributing such prizes to the vessels winning them.

6. For the first year such prizes should be given to the best ships in each fleet, but after the scheme has once been tried, they should not be paid unless the best ship attains a certain percentage of efficiency. The scheme being a hitherto untried one, it is not thought that we have as yet sufficient knowledge to justly lay down what such percentage should be.

7. It is not unreasonable to suppose that the increased attention to economy in coal consumption, which would result from the adoption of such a scheme, would in a very short time result in a saving of at least 5 tons of coal a day, when steaming, for each battle ship and armored cruiser, and of at least 1 ton a day for each destroyer. These are believed to be very conservative estimates, and would result as follows, from vessels now or soon to be in commission:

Class of ship.	Num-ber.	Daily saving.	Total daily saving.	Aver-age cost.	Total saving.
		Tons.	Tons.		
Battle ships.....	21	5	105	\$4.00	\$420
Armored cruisers.....	12	5	60	4.00	260
Destroyers.....	16	1	16	4.00	64
Total.....					724

Total yearly prizes.....	\$2,400
Total daily saving.....	720
Number of days steaming to save amount of prize money, less than four days.	

8. It should, therefore, be easy to pay this money in the saving resulting from four days' steaming, and to save at the rate of \$20 per day's steaming for every large ship and \$4 per day for each destroyer for every day's steaming she does over four in each year. The saving would be very great.

9. It is therefore suggested, in view of the decreased expenditures under the coal appropriation that would undoubtedly result, that, without increasing the total appropriation, the whole thing could be managed by changing in the appropriation bill the heading of the clause under the Bureau of Equipment now reading, "Coal and transportation," to read, "Coal, transportation, and prizes for steaming efficiency," and by adding to the clause itself the words, "and for prizes for excellence and economy in steaming and machinery performance."

10. Advancement in rating should be given to men who show themselves specially competent in such work, and after the yearly competition it should be possible aboard the winning ships to advance such men one rate in advance of the completion of their probationary period in the lower rate, provided such probationary service as is uncompleted be made up in the next higher rate before another advancement is possible.

11. I respectfully recommend that the Department take such action as to render possible both the above forms of reward.

12. It is undoubtedly true that the present rules as laid down will be found crude and unsatisfactory in a number of points, but our present knowledge does not permit us to be more exact at this date. It is confidently believed, however, that, as has been the case with the gunnery rules, a set of satisfactory regulations governing these contests will soon be established.

13. Inclosures are as follows:

- (a) Letter to commanding officers inclosing:
- (b) Form for supply data required to enable the scheme to be started, which data was obtained before the officers knew the purpose for which it was desired.
- (c) Letter to commanding officers establishing the system of competition, inclosing:
- (d) Rules governing the competition.
- (e) Memorandum showing proposed method of distributing cash prizes.

14. I respectfully request that the Department's decision in the matter may be made known to me at as early a date as practicable, in order that I may be able to use such decision, if favorable, as an immediate spur to the officers and men of the fleet.

Very respectfully,

R. D. EVANS,
Rear-Admiral, U. S. Navy,
Commander in Chief United States Atlantic Fleet,

THE SECRETARY OF THE NAVY.

"E"

Memorandum showing general method of distribution of proposed steaming-efficiency prize.

1. For a battle ship or armored cruiser the *Connecticut* is taken as an example. Her complement, in the engineer's force, is:

C. P. O.	P. O. 1 C.	P. O. 2 C.	Fireman.	Coal passers.
C. M. M. 6	M. M. 1 C. 6	M. M. 2 C. 6	F. 1 C. 42	
C. W. T. 4	W. T. 18	Oilers 12	F. 2 C. 38	C. P. 89
	Boilermakers. 2			
	Blacksmiths. 2			
	Coppersmith. 1			
Total 10	29	18	80	89
Number of shares to be given each man of rate. 5	4	3	2	1
Total number of shares. 50	116	54	160	89

Number of single shares, 449.
Value of prize, \$1,000. Value of single share, \$2.10.

Rate.	Number of shares.	Value of share.	Prize per man.	Number of men.	Total prize.
C. P. O.	5	\$2.10	\$10.50	10	\$105.00
P. C. 1 C.	4	2.10	8.40	29	243.60
P. O. 2 C.	3	2.10	6.30	18	113.40
Firemen.	2	2.10	4.20	80	336.00
Coal passers.	1	2.10	2.10	89	186.90
Total.					984.90

Leaving a balance of \$15.10 which would be distributed at the discretion of the commanding officer.

2. As complements of different ships vary, and as ships are sometimes short of or in excess of complement, the details of the distribution should be left to the commanding officer in each case, provided he follows the above general plan. It might be advisable in some cases to withhold his share in the prize from some individual who did not do well and either give it to some other man who did particularly well or else to distribute it among the others.

3. For each destroyer winning the prize, assume each share of the same value as the above, say \$2.10, and give men of each rate the same number of shares as for a battle ship. This would insure men of each rate getting the same prize, whether serving aboard a battle ship or aboard a destroyer. On this basis, by considering the complement allowed a standard destroyer, say of the *Truxtun* class, the total value of the prize to be offered in this class could be determined. It would probably not be over \$200.

[No. 35.]

NAVY DEPARTMENT,
Washington, February 21, 1908.

FOR THE RELIEF OF JULIUS KAISER—DEPARTMENT LETTER.

SIR: In compliance with the request contained in your letter of the 8th instant for the Department's views as to a bill (H. R. 12707) "for the relief of Julius A. Kaiser," I have the honor to invite attention to the following extract from the Department's letter of February 5, 1907, in regard to a bill (H. R. 24515, 59th Cong.) with the same title and along the same general lines:

Passed Assistant Engineer Kaiser was transferred to the retired list of officers of the Navy July 8, 1873, as an assistant engineer. At the time of such retirement his promotion to passed assistant engineer was due.

By authority of an act of Congress approved January 30, 1903, he was promoted to the grade of passed assistant engineer from October 13, 1868. The date from which the promotion made in pursuance of this act took effect antedates the date of retirement of this officer by six years.

While believing that the question whether the benefits of a clause contained in the act of June 29, 1906, relating to the advancement of retired officers should be extended by special acts applicable to individual cases is one that should appropriately be left to the determination of the Congress, if it be determined that such extension should be so made, this Department perceives no objection to the enactment of the proposed legislation for the relief of Mr. Kaiser.

With reference to the advancement of Mr. Kaiser, the opinion above expressed is adhered to; but it is pointed out that there is a material difference between the wording of the former bill (H. R. 24515) and this present bill (H. R. 12707) in that the latter measure would seem to have the effect of changing this officer's status to be that of a retired lieutenant-commander rather than of a retired chief engineer with the rank of lieutenant-commander.

It is believed, therefore, that the wording of the bill in question (H. R. 12707) might, with advantage, be so altered that, beginning with line 6, it will read as follows;

tired list of the Navy with the rank of lieutenant, upon said retired list as a chief engineer with the rank of lieutenant-commander, to date from June twenty-ninth nineteen hundred and six.

Very respectfully,

V. H. METCALF, *Secretary*

HON. GEORGE EDMUND FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives.*

NAVY DEPARTMENT, *Washington, D. C., February 13, 1903.*

Record of the service of Passed Assistant Engineer Julius A. Kaiser, U. S. Navy, Retired.

September 13, 1863, warranted a third assistant engineer from September 8, 1863.
 September 22, 1863, to the U. S. S. *Sangamon*.
 April 5, 1865, detached from U. S. S. *Canandaigua*, and wait orders.
 April 26, 1865, to the U. S. S. *Erolie*.
 February 12, 1869, detached from the U. S. S. *Canandaigua* and wait orders. (Was transferred to the *Canandaigua* on November 4, 1868.)
 April 15, 1869, to examination for promotion May 10.
 July 25, 1866, promoted to second assistant engineer from this date.
 June 2, 1869, commissioned.
 July 16, 1869, to the Asiatic station per steamer August 3 from San Francisco, Cal. (Reported on the U. S. S. *Ashuelot* August 27, 1869).
 April 20, 1870, detached from U. S. S. *Ashuelot* March 3, and sick leave from 25th instant.
 August 24, 1870, to the navy-yard, Philadelphia, Pa.
 February 12, 1873, detached and to the U. S. S. *Juniata*.
 February 12, 1873, previous order revoked, and wait orders; will be ordered before retiring board.
 June 14, 1873, appear before retiring board.
 July 8, 1873, placed on the retired list from this date.
 February 24, 1874, title changed from second assistant engineer to assistant engineer by act of Congress approved this date.
 January 26, 1878, leave one year from February last, with permission to go abroad.
 April 30, 1898, to the navy-yard, League Island, Pa. (Reported May 2.)
 October 14, 1898, detached and return home. (Detached and arrived home October 15.)
 February 21, 1903, commissioned a passed assistant engineer, with the rank of lieutenant, on the retired list, from October 13, 1868, in accordance with the provisions of an act of Congress approved January 30, 1903. (Executed oath of office on February 25, 1903.)

[No. 36.]

**WAR DEPARTMENT,
THE ADJUTANT-GENERAL'S OFFICE,
Washington, January 22, 1908.**

**MILITARY RECORD OF RANDOLPH W. CAMPBELL, ALIAS PAULETTE
SMITH—DEPARTMENT LETTER.**

Hon. GEORGE EDMUND FOSS,
House of Representatives.

SIR: Referring to your letter of yesterday, received to-day, in which you request that the military record of Randolph W. Campbell, alias Paulette Smith, be sent to the Committee on Naval Affairs, House of Representatives, for its consideration in connection with House Report 14343, "to correct the naval record of Randolph W. Campbell," I am directed by the Secretary of War to advise you that it does not appear from your letter, or from the bill inclosed therewith, in what organization "the three years' subsequent faithful service in the United States Army," referred to in the bill, was rendered by this man.

It appears from a record of previous correspondence on file in this Department, however, that in 1890 the Judge-Advocate-General of the Navy requested to be furnished with the record of one Paulette Smith as a member of Company I, First Michigan Engineers and Mechanics, and it is possible that the record of service of that man is the one which you desire.

It is shown by the records that Paulette Smith was enrolled December 18, 1863, and was mustered into service December 24, 1863, as a private, in Company I, First Michigan Engineers and Mechanics, to serve three years. He appears to have been present with said organization, with the exception of a period of fifteen days' absence without leave in July, 1865, until September 22, 1865, when he was mustered out of service with the company as an artificer.

It is stated on the records that this soldier was 21 years of age at the date of his enlistment; that he was born in Canada, and by occupation a sailor, and that he was 5 feet 8 inches in height, and of light complexion, blue eyes, and brown hair.

Nothing has been found of record in this Department to show that this man was ever known as Randolph W. Campbell, or that he served in the Navy previously to the date of his enlistment in the organization mentioned.

Very respectfully,

F. C. AINSWORTH,
The Adjutant-General.

**NAVY DEPARTMENT,
Washington, January 22, 1908.**

SIR: Referring to your communication of the 21st instant, requesting to be furnished, for the use of the Committee on Naval Affairs, in the consideration of the bill (H. R. 14343) to correct the naval

record of Randolph W. Campbell, with a copy of his record of service under his enlistment in the Navy during the war of the rebellion, I have the honor to inform you that it appears from an examination of the records on file in the Bureau of Navigation and in the office of the Auditor for the Navy Department that Randolph W. Campbell enlisted in the Navy at New York, N. Y., October 30, 1862, as an ordinary seaman, for one year; served on board the U. S. S. *North Carolina* and *Vanderbilt* until April 16, 1863, when he was transferred to the prize steamer *Gertrude*, which vessel was to be taken to New York. The records show that after the arrival of the *Gertrude* at New York some of the crew were transferred to the receiving ship *North Carolina*, but Campbell's name is not found in the list of men so transferred.

Very respectfully,

V. H. METCALF,
Secretary.

Hon. GEORGE EDMUND FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives.*

[No. 37.]

NAVY DEPARTMENT,
Washington, February 11, 1908.

TO REINSTATE JOHN W. GRAY IN HIS CLASS AT THE NAVAL
ACADEMY.

SIR: Referring to your letter of the 28th ultimo, requesting the views and recommendations of the Department in reference to the bill (H. R. 9549) to reinstate John W. Gray in his class at the Naval Academy, I have the honor to invite attention to a letter addressed to you on January 28, 1907, reporting upon a similar measure introduced in the Fifty-ninth Congress, a copy of which letter is given below:

Referring to your letter of the 19th instant, requesting the views and recommendations of the Department on the bill (H. R. 17798) to reinstate John W. Gray in his class at the Naval Academy, I have the honor to quote a report of the Bureau of Navigation, as embodied in the Department's letter of the 4th of June last to the committee, as follows:

"John W. Gray was appointed a midshipman June 28, 1904, by Senator Fairbanks, of Indiana.

"He was born January 13, 1885, and was accordingly 21 years of age January 13, 1906.

"The record of Midshipman Gray at the semiannual examination, 1906, forwarded to the Department from the Naval Academy, is as follows:

"Branches in which proficient:

Efficiency.....	3.02
Mathematics.....	2.64
Mechanical drawing.....	2.57
Physics.....	2.58
English.....	2.87
Languages.....	2.56

"Branch in which deficient: Conduct, received 252 demerits.

"Semiannual examination, 1905: Deficient in mathematics (2.42): Warned. Annual examination, 1905, deficient in mechanical drawing (2.46). Reexamined in September and passed into third class.

"Serious offenses: June 26, 1905, smoking. August 13, 1905, late from liberty. August 14, 1905, leaving ship without authority. November 19, 1905, room smelling of tobacco smoke. The number of demerits allowed the third class, of which Mr. Gray was a member, is 250 for the academic term of eight months. Mr. Gray was charged with 252 demerits at the end of the first term of four months.

"The academic board recommended that Gray be dropped, but his resignation was accepted instead March 16, 1906.

"On the request of Congressman Chaney, of Indiana, the Naval Academy was requested to reconsider the case of Gray, and under date of March 15, 1906, wrote the Department that upon reconsideration of his case the academic board decided to adhere to its former recommendation.

"The resignation of Gray created a vacancy for which Senator Hemenway has nominated a candidate for examination June 19. For this reason if Gray is reinstated he should be carried as an extra number."

As the class (then the third) of which Mr. Gray was a member has, since his resignation, been advanced, it would seem that he should, if now restored to the service, re-enter the present third class. It is suggested, also, in the event of further action on the bill, that the words "and directed" in line 4 be struck out.

The Department is of opinion, however, that the reinstatement of Mr. Gray as a midshipman at the academy would in any case be harmful to the discipline of that institution, and favorable action on the measure is not recommended.

As stated by the Bureau of Navigation in a report dated the 6th instant, the continued presence at the Naval Academy of Mr. Gray

' was considered contrary to the best interests of the service by reason of his habitual disregard of established authority and repeated violations of naval discipline. Similar action as the result of the record of demerits has been of frequent occurrence, and is essential to the maintenance of good discipline at this institution. Mr. Gray is now 23 years of age, and three years beyond the age limit authorized by law for admission of candidates to the academy.'

The Department adheres to its previous recommendations, that favorable action be not taken upon the measure for the reinstatement of Mr. Gray as a midshipman at the Naval Academy.

Very respectfully,

TRUMAN H. NEWBERRY,
Acting Secretary.

HON. GEORGE EDMUND FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives.*

[No. 38.]

NAVY DEPARTMENT,
Washington, February 10, 1908.

TO REMOVE CHARGE OF DESERTION AGAINST HENRY C. BUR-
ROWES—DEPARTMENT LETTER.

SIR: Referring to your communication of the 3d instant, requesting to be furnished, for the use of the Committee on Naval Affairs, in the consideration of the bill (H. R. 13786) for the removal of the charge of desertion against Henry C. Burrowes, late seaman, United States Navy, with the views and recommendations of the Department touching the propriety of the legislation proposed, I have the honor to state that it appears from an examination of the records on file in the Bureau of Navigation and in the office of the Auditor for the Navy Department, that a Henry Burrowes enlisted in the Navy at Brooklyn, N. Y., April 6, 1865, as a landsman, for three years; served on board the U. S. S. *Vermont* and *Vanderbilt*, and deserted from the latter-named vessel October 2, 1865.

Burrowes's case has, on several occasions, been considered by the Department with a view to the removal of the charge of desertion entered on the rolls of the *Vanderbilt* against him and each time decided adversely owing to the fact that the case is not one in which relief can be granted under the provisions of the act "to relieve certain appointed or enlisted men of the Navy and Marine Corps from the charge of desertion," approved August 14, 1888, as amended May 24, 1900, because, the entry against him being a proper one, the Department was without authority otherwise to remove the charge.

The Department sees no reason for special legislation in this case. The question whether or not such relief should be granted the applicant would appear to be a matter for the determination of the Congress.

In this connection the attention of the committee is invited to the fact that the discharge provided for is described in line six of the bill as an "honorable discharge." This term has, under existing law, a special significance in the Navy, and such discharge entitles a man, when issued upon the expiration of an enlistment for four years as a testimonial of fidelity and obedience, to certain pecuniary benefits. It is suggested, therefore, if the committee should determine to report the bill favorably, that the term "discharge" instead of "honorable discharge" be used.

Very respectfully,

TRUMAN H. NEWBERRY,
Acting Secretary.

HON. GEORGE EDMUND FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives.*

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[No. 39.]

NAVY DEPARTMENT,
Washington, February 20, 1908

**AUTHORIZING THE PRESIDENT TO NOMINATE LIEUT. SAMUEL
LINDSAY GRAHAM TO BE A COMMANDER ON THE RETIRED
LIST.**

SIR: Referring to your letter of the 8th instant, requesting comment upon a bill (H. R. 11137) authorizing the President to nominate Lieut. Samuel Lindsay Graham, now on the retired list, to be a commander on the retired list of the Navy.

The purpose of the bill in question is apparently to authorize the advancement of Lieutenant Graham to the grade of commander, although it is noted that, as at present worded, it provides merely for his *nomination* to the Senate.

Lieutenant Graham was retired on December 25, 1893, on account of chronic inflammation of the bowels, resulting from unusual and severe exposure on shore at Samoa after the wreck of his ship, the *Trenton*, in 1889. His incapacity for active service was pronounced to be incident to the service and incurred in the line of duty.

Since his retirement he has been employed at various times on active duty on shore.

Officers on the active list of the Navy whose length of service corresponds with the active service of Lieutenant Graham are now commanders, but it is to be borne in mind that the active service of Lieutenant Graham since his retirement in 1893 has been entirely on shore, while that of the officers on the active list has been largely at sea.

There are a great many officers on the retired list who have been employed on active duty on shore since the passage of the act of June 7, 1900, which authorizes such employment, and each of these officers has the same claim to advancement as has Lieutenant Graham.

All of these officers have, while employed on active duty, received the full duty pay and allowances of their respective grades.

Legislation similar to the proposed would tend to make the retired list very attractive to certain officers who might be willing to escape their legitimate duties at sea, and by granting such officers their regular promotion an injustice would be done to their fellow-officers who have been performing the more important and more arduous duties at sea.

Lieutenant Graham's record is first class in every particular, but the Department does not believe, even in his case, that the circumstances are such as to warrant promotion on the retired list.

Very respectfully,

V. H. METCALF, *Secretary.*

HON. GEORGE EDMUND FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives.*

NAVY DEPARTMENT,
Washington, D. C., February 13, 1908.

Record of the service of Lieut. Samuel Lindsey Graham, U. S. Navy, retired. (Since date of entry into the naval service.)

September 10, 1848, born in Carlisle, Pa.
 July 25, 1866, appointed a midshipman from Pennsylvania.
 June 7, 1870, graduated.
 June 7, 1870, detached from Naval Academy and wait orders.
 July 26, 1870, to the *Guerriere* August 10.
 July 13, 1871, promoted to ensign.
 March 11, 1872, detached and wait orders.
 October 17, 1872, to examination.
 November 15, 1872, to the U. S. S. *Portsmouth*.
 November 28, 1873, commissioned as an ensign.
 April 28, 1874, to examination.
 June 5, 1874, promoted to master.
 June 24, 1874, commissioned as a master.
 August 11, 1874, Detached from U. S. S. *Saranac* and to the U. S. S. *Tuscarora*
 July 7, 1876, detached and wait orders.
 November 10, 1876, to the U. S. S. *Plymouth*.
 May 2, 1879, detached and wait orders.
 July 21, 1879, to the Hydrographic Office August 1.
 March 15, 1880, detached and to the U. S. S. *Constellation*.
 June 12, 1880, detached and wait orders.
 June 24, 1880, to the Hydrographic Office July 1.
 November 26, 1880, promoted to lieutenant.
 November 30, 1880, to examination.
 December 29, 1880, commissioned as a lieutenant.
 August 4, 1881, detached and to the U. S. S. *Lancaster* 20th instant.
 June 19, 1884, detached and to the U. S. S. *Powhatan*.
 August 22, 1884, detached and wait orders.
 November 5, 1884, to the Hydrographic Office 17th instant.
 March 12, 1885, detached 17th, and in charge branch hydrographic office. Baltimore, Md., 18th instant.
 November 4, 1887, detached and to the U. S. S. *Trenton*.
 July 12, 1889, detached 7th instant and wait orders.
 August 20, 1889, inspector of steel, Pittsburg, Pa., September 2.
 July 16, 1892, leave two months from 20th instant.
 September 30, 1892, sick leave thirty days from October 1.
 October 24, 1892, detached and to compass instruction, Bureau of Equipment. (Reported November 1.)
 November 21, 1892, detached and to ordnance instruction, navy-yard, Washington, D. C. (Reported November 23.)
 February 28, 1893, detached and to the U. S. S. *Bancroft* March 3.
 July 10, 1893, detached and to the U. S. S. *Yorktown*. (Detached 12, reported July 13.)
 July 15, 1893, order 10th revoked; detached and granted sick leave.
 November 25, 1893, appear before naval retiring board December 4.
 December 25, 1893, placed on the retired list of officers of the Navy from this date in accordance with the provisions of section 1453 of the Revised Statutes.
 May 11, 1898, to the navy-yard, Mare Island, Cal. (Reported May 19.)
 January 27, 1899, detached and proceed home. (Detached February 3.)
 May 17, 1902, to the navy-yard, Mare Island, Cal., June 25, as recorder board of labor. (Reported June 25.)
 June 25, 1902, assigned to duty as assistant to captain of the yard.
 September 30, 1907, leave thirty days from this date.

[No. 40.]

NAVY DEPARTMENT,
Washington, January 22, 1908.

FOR THE RELIEF OF JOHN C. COLWELL (CAPTAIN)—DEPARTMENT LETTER.

SIR: Referring to the bill (H. R. 12576) for the relief of John C. Colwell, captain, on the retired list of the United States Navy, which was forwarded to the Department for an expression of its views thereon by your letter of the 21st instant, I have the honor to state that the facts of this case are given by the Bureau of Navigation in the following report:

Capt. John C. Colwell, U. S. Navy, retired, was selected for retirement on June 30, 1907, by the board of rear-admirals convened by the Department in accordance with the provisions of section 9 of the Navy personnel act approved March 3, 1899.

The position on the Navy list to which the attached bill proposes to place Captain Colwell is the position held by him prior to the date of his retirement.

The object of sections 8 and 9 of the Navy personnel act was to bring officers to command rank at an earlier age than had been secured theretofore by the process of voluntary and compulsory retirements. To restore officers to the active list who have been retired tends to defeat this very object by making the officers who have been advanced by these retirements junior in rank to the officers so restored who must be given consideration in making assignments to duty.

The Bureau believes it would be injurious to the service to restore officers to the active list who have been selected for retirement by the board of rear-admirals, in accordance with existing law, and recommends the Department's disapproval of the proposed legislation.

Concurring generally in the foregoing remarks of the Bureau of Navigation, I have the honor to recommend that the bill in question (H. R. 12576) be not given favorable consideration by the committee.

Very respectfully,

V. H. METCALF,
Secretary.

HON. GEORGE EDMUND FOSS,
Chairman Committee on Naval Affairs,
House of Representatives.

(889)

[No. 41.]

NAVY DEPARTMENT,
Washington, February 7, 1908.

**TO CORRECT THE NAVAL RECORD OF JOHN STODDART—
DEPARTMENT LETTER.**

SIR: Referring to your communication of the 3d instant, requesting to be furnished, for the use of the Committee on Naval Affairs, in the consideration of the bill (H. R. 13124) to correct the naval record of John Stoddart, with the views and recommendations of the Department touching the propriety of the legislation proposed, I have the honor to state that it appears from an examination of the records on file in the Bureau of Navigation and in the office of the Auditor for the Navy Department that John Stoddart enlisted in the Navy at Philadelphia, Pa., December 26, 1861, as a seaman, for three years; served on board the U. S. S. *Princeton* and *Adolph Hugel*, and deserted from the latter-named vessel August 15, 1863.

On August 31, 1905, Stoddart's case was considered by the Department with a view to the removal of the charge of desertion entered on the rolls of the *Adolph Hugel* against him and decided adversely, owing to the fact that the case is not one in which relief can be granted under the provisions of the act "to relieve certain appointed or enlisted men of the Navy and Marine Corps from the charge of desertion," approved August 14, 1888, as amended May 24, 1900, because, the entry against him being a proper one, the Department was without authority otherwise to remove the charge.

The Department sees no reason for special legislation in this case. The question whether or not such relief should be granted the applicant would appear to be a matter for the determination of the Congress.

In this connection the attention of the committee is invited to the fact that the discharge provided for is described in lines 6 and 7 of the bill as an "honorable discharge." This term has, under existing law, a special significance in the Navy, and such discharge entitles a man, when issued upon the expiration of an enlistment for four years as a testimonial of fidelity and obedience, to certain pecuniary benefits. It is suggested, therefore, if the committee should determine to report the bill favorably, that the term "discharge," instead of "honorable discharge," be used.

Very respectfully,

V. H. METCALF,
Secretary.

HON. GEORGE EDMUND FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives.*

(671)

[No. 42.]

NAVY DEPARTMENT,
Washington, February 10, 1908.

TO CORRECT THE NAVAL RECORD OF LIEUT. HILARY
WILLIAMS—DEPARTMENT LETTER.

SIR: Referring to your letter of the 4th instant, transmitting, with request for the views and recommendations of the Department in reference thereto, a bill (H. R. 10416) to correct the naval record of Lieut. Hilary Williams, U. S. Navy, I have the honor to invite attention to the Department's letter of the 1st instant, giving this information in response to your request of the 23d ultimo.

Very respectfully,

TRUMAN H. NEWBERRY,
Acting Secretary.

HON. GEORGE EDMUND FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives.*

NAVY DEPARTMENT,
Washington, February 1, 1908.

SIR: Referring to your letter of January 23, 1908, transmitting a bill (H. R. 10416) to correct the naval record of Lieut. Hilary Williams, U. S. Navy, and requesting the views and recommendations of the Department thereon:

Lieutenant Williams appeared for examination for promotion to the grade of lieutenant in June, 1904, and failed. For seventeen months immediately preceding his examination Lieutenant Williams was on recruiting duty, and he claimed that the nature of the duties was such as to prevent adequate preparation for his examination.

In accordance with the provisions of section 1505, Revised Statutes, that—

Any officer of the Navy on the active list below the grade of commander, who, upon examination for promotion, is not found professionally qualified, shall be suspended from promotion for one year, with corresponding loss of date when he shall be reexamined, and in case of his failure upon such reexamination he shall be dropped from the service.

Lieutenant Williams was suspended from promotion for one year. During this year of suspension from promotion, 47 officers who were originally below him qualified for promotion and passed above him.

The loss of 47 numbers by an officer is a very severe penalty to impose, more than is usually inflicted by court-martial for the most serious offenses. Lieutenant Williams has since been highly commended by his superior officers and has shown himself to be a thoroughly capable officer.

While the Department believes that there should be a penalty imposed upon officers who fail in their examinations for promotion, it believes that, under conditions as they exist at present, where between forty and fifty officers are promoted annually to the grade of lieutenant, the provisions of section 1505 Revised Statutes,, when carried out, inflict a penalty upon an officer far greater than was intended when this law was passed (July 15, 1870), when promotions were much slower.

The Department believes that a loss of, say, 10 numbers, in the line and a corresponding proportionate number in the staff corps, would be more just.

The Department recommends favorable action upon this bill.

Very respectfully,

V. H. METCALF,
Secretary.

HON. GEORGE EDMUND FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives.*

[No. 43.]

**NAVY DEPARTMENT,
Washington, February 12, 1908**

FOR THE RELIEF OF WILLIAM G. CUTLER (CAPTAIN)—DEPARTMENT LETTER.

SIR: Referring to the bill (H. R. 7827) for the relief of William G. Cutler, a captain on the retired list of the United States Navy, which was forwarded to the Department for an expression of its views thereon by your letter of the 8th instant, I have the honor to state that the facts of this case are given by the Bureau of Navigation in the following report:

Capt. William G. Cutler, U. S. Navy, retired, before he was transferred to the retired list, ranked next after Commander York Noel, U. S. Navy, and had he remained on the active list would not, in regular course, have been promoted to the grade of captain until the 15th day of May next. Should the attached bill be enacted into a law between now and that date he will be given a position above officers who were his seniors before he was transferred to the retired list, and would of course be giving him his promotion to the grade of captain at an earlier date than he would have received if he had not been retired.

Captain (then Commander) Cutler was selected for retirement on June 30, 1907, by the board of rear-admirals convened by the Department in accordance with the provisions of section 9 of the Navy personnel act, approved March 3, 1899.

The object of sections 8 and 9 of the Navy personnel act was to bring officers to command rank at an earlier age than had been secured theretofore, by the process of voluntary and compulsory retirements. To restore officers to the active list who have been retired tends to defeat this very object by making the officers who have been advanced by these retirements junior in rank to the officers so restored, who must be given consideration in making assignments to duty.

The Bureau believes it would be injurious to the service to restore officers to the active list who have been selected for retirement by the board of rear-admirals in accordance with existing law, and recommends the Department's disapproval of the proposed legislation.

Concurring generally in the foregoing remarks of the Bureau of Navigation, I have the honor to recommend that the bill in question (H. R. 7827) be not given favorable consideration by the committee.

Very respectfully,

TRUMAN H. NEWBERRY,
Acting Secretary.

HON. GEORGE EDMUND FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives.*

[No 44.]

**NAVY DEPARTMENT,
Washington, February 10, 1908.**

**TO PLACE THE NAME OF PENDLETON G. WATMOUGH UPON THE
RETIRED LIST OF THE NAVY AS LIEUTENANT-COMMANDER.**

SIR: The receipt is acknowledged of your letter of the 29th ultimo inclosing a bill (H. R. 12224) to place the name of Pendleton G. Watmough upon the retired list of the United States Navy as lieutenant-commander.

From the records of the Department it appears that Mr. Watmough was appointed a midshipman September 20, 1841, and served variously through that and succeeding grades until April 26, 1859, when his resignation as a lieutenant in the Navy was accepted. On May 13, 1861, he was appointed an acting lieutenant, and was restored to the Navy from July 16, 1862, as a lieutenant-commander, serving until July 28, 1865, when his resignation was again accepted. No reason for this action was given in his letter of resignation, but a pencil memorandum thereon states that it was tendered in order that he might enter business life.

The Department does not approve of placing any person on the retired list not at the time of his retirement an officer of the Navy, and for the reasons specified in the law. The effect of the passage of a bill of this kind is such as would tend to convert the retired list into a pension list, which tendency should not be encouraged, notwithstanding that in certain cases sentiment or other considerations might suggest favorable action.

There does not appear to be anything of record in Mr. Watmough's case as an officer of the Navy which would entitle him to special consideration, and the Department does not approve the proposed legislation.

Very respectfully,

TRUMAN H. NEWBERRY,
Acting Secretary.

HON. GEORGE EDMUND FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives, Washington, D. C.*

[No. 45.]

**NAVY DEPARTMENT,
Washington, February 12, 1908.**

FOR THE RELIEF OF LEVI T. SAFFORD—DEPARTMENT LETTER

SIR: Referring to your letter of the 8th instant, forwarding a bill (H. R. 11984) for the relief of Levi T. Safford, passed assistant engineer, U. S. Navy, retired, with request for the views and recommendations of this Department in reference thereto, I have the honor to quote below report of the Bureau of Navigation in the matter:

It appears from an examination of the record and proceedings of a naval examining board, that Passed Assistant Engineer Safford was transferred to the retired list on furlough pay in accordance with the provisions of section 1454 of the Revised Statutes, his incapacity for active service being caused by deafness in both ears which was not the result of an incident of the service.

The record of Passed Assistant Engineer Safford does not show that he performed any duty out of the routine duties of an engineer, and the Bureau sees no reason why he should be given special consideration. The passage of this bill would establish a precedent for other claims of this nature, which might be the cause of the expenditure of a great deal of money. The Bureau does not recommend favorable consideration of the attached bill.

A copy of the record of service of Passed Assistant Engineer Levi T. Safford, U. S. Navy, retired, is inclosed herewith.

The Department concurs in the above remarks of the Bureau of Navigation, that there appears to be no reason why Mr. Safford should be given special consideration and that the passage of the proposed measure would establish a precedent for other claims of like character. It is therefore recommended that this bill (H. R. 11984) be not favorably acted upon by Congress.

Very respectfully,

TRUMAN H. NEWBERRY,
Acting Secretary.

HON. GEORGE EDMUND FOSS,
*Chairman, Committee on Naval Affairs,
House of Representatives.*

NAVY DEPARTMENT,
Washington, D. C., February 12, 1908.

Record of the service of Passed Asst. Engineer Levi T. Safford, U. S. Navy, retired.

December 8, 1862, appointed a third assistant engineer in the Navy from this date.
December 11, 1862, warranted.
December 19, 1862, to the U. S. S. *Paul Jones*, per steamer *Blackstone*.
April 8, 1864, promoted to second assistant engineer.
July 19, 1864, warranted, No. 11.
August 18, 1866, commissioned from July 25, 1866, No. 120.
June 25, 1867, detached from U. S. S. *Juniata* and wait orders.
September 10, 1867, to the U. S. S. *Wampanoag*, trial trip.

February 19, 1868, to examination, then wait orders.
 March 5, 1868, to contract trial machinery, U. S. S. *Ammonoosuc*.
 March 20, 1868, failed in examination.
 June 6, 1868, promoted to first assistant engineer.
 June 23, 1868, detached and wait orders.
 September 28, 1868, to the U. S. S. *Nipsic* October 15.
 July 21, 1870, detached and wait orders.
 November 28, 1870, to the U. S. S. *California* December 10.
 July 24, 1872, detached from U. S. S. *Saranac*, return and report.
 October 24, 1872, detached, return and report.
 December 13, 1872, detached 28th ultimo and wait orders.
 January 6, 1873, to examination 13th instant.
 March 12, 1873, commissioned.
 April 18, 1873, to the navy-yard, Norfolk, Va.
 November 25, 1873, detached and to the U. S. S. *Terror*.
 December 1, 1873, order to the U. S. S. *Terror* revoked, and to the U. S. S. *Florida*.
 January 10, 1874, detached and to the navy-yard, New York, N. Y.
 April 11, 1874, detached and to the naval rendezvous, New York.
 December 4, 1874, detached and to the U. S. S. *Dictator*, per steamer, 12th instant.
 July 3, 1876, detached and wait orders.
 August 2, 1877, to special duty, Chester, Pa.
 May 1, 1878, detached and wait orders.
 June 19, 1878, to the navy-yard, Pensacola.
 October 21, 1879, detached and wait orders.
 December 4, 1879, to the U. S. S. *Sutata*.
 December 27, 1879, report for medical survey.
 December 31, 1879, detached and to the naval hospital, Chelsea, for treatment.
 March 18, 1880, to medical survey.
 March 30, 1880, appear before retiring board.
 June 23, 1880, to the U. S. S. *Kearsarge*.
 August 26, 1880, detached and to the hospital, New York, for treatment.
 December 8, 1880, sick leave.
 July 5, 1881, appear before retiring board.
 October 11, 1881, placed on retired list.
 July 11, 1898, to the U. S. S. *Wabash*. (Reported July 16.)
 July 27, 1898, detached from U. S. S. *Wabash* and to U. S. S. *Constellation*.
 January 20, 1899, detached and proceed home. (Detached February 3, home February 6.)

[No. 46.]

**NAVY DEPARTMENT,
Washington, January 30, 1908.**

FOR THE RELIEF OF CLARENCE FREDERICK CHAPMAN—DEPARTMENT LETTER.

SIR: Referring to your letter of January 27, 1908, forwarding "A bill (H. R. 12499) for the relief of Clarence Frederick Chapman, U. S. Navy," and requesting the views and recommendations of the Department thereto, I have to inform you as follows:

On July 3, 1905, Clarence Frederick Chapman, ordinary seaman, United States Navy, was tried by general court-martial upon the following charges and specifications:

CHARGE I: Assaulting and striking another person in the Navy.

Specification.—In that the said Clarence Frederick Chapman, an ordinary seaman in the United States Navy, attached to and serving on board the United States ship *Missouri*, at the navy-yard, Boston, Massachusetts, did, at or about eleven hours antemeridian on the seventeenth day of June, nineteen hundred and five, willfully and maliciously and without justifiable cause, assault and strike Robert E. L. Pendery, coxswain, United States Navy, attached to said vessel, who was then and there in the execution of the duties of his office.

CHARGE II: Refusing to obey the lawful order of a petty officer.

Specification.—In that the said Clarence Frederick Chapman, an ordinary seaman in the United States Navy, attached to and serving on board the United States ship *Missouri*, at the navy-yard, Boston, Massachusetts, having at or about eleven hours antemeridian on the seventeenth day of June, nineteen hundred and five, been ordered by Robert E. L. Pendery, coxswain, United States Navy, to assist in getting out a wire hawser, did refuse to obey, and did willfully disobey, the said lawful order of a petty officer, the said Robert E. L. Pendery, coxswain, United States Navy, who was then and there in the execution of the duties of his office.

The pleading to the specification to the first charge was "guilty, except to the words 'willfully and maliciously and without justifiable cause,'" and to the first charge "guilty;" to the second charge, "not guilty." The court decided not to accept the plea to the specification of the first charge because the plea omitted the words that constituted the gravamen of the offense. Whereupon a plea of not guilty was entered.

After hearing the testimony the court found the specifications proved and the accused of both charges guilty, adjudged a punishment which was duly approved by the Secretary of the Navy, Mr. Darling, acting.

On June 25, 1906, the President requested information in this case, and in reply the following letter was sent:

In reply to your letter of the 25th instant, for report on the sentence in the case of Clarence F. Chapman, ordinary seaman, I have the honor to state that the sentence was not considered excessive either by the first reviewing authority, the commander in chief, North Atlantic Fleet, or by the Department.

Chapman's offenses were striking a petty officer and refusing to obey his lawful order, offenses which are considered quite serious.

In view of his excellent conduct while in prison and inadequate accommodations for the number of prisoners confined, having due regard for sanitary conditions, he was one of a number of prisoners discharged on the 23d instant from the service in accordance with the terms of their sentences.

At the time of his discharge, the Department had under consideration remitting the discharge adjudged in his sentence and restoring him to duty. In view of the recommendation of the Bureau, such action would have been taken but for the fact that the Bureau's recommendation reached the office of the Judge-Advocate-General after the discharge had been effected.

If Chapman desires to reenlist, the Department will consider favorably his application.

In view of the above the Department does not consider that it would be for the interest of the service or conducive to the maintenance of discipline for Chapman to be reinstated in the Navy and given a gratuity for the time he was confined. As stated in the letter to the President quoted above Chapman may, by proper application, be reenlisted and by honorable service obtain an honorable discharge, and the Department therefore recommends that the bill be not passed.

In this connection attention is invited to the fact that the amount of money stated in the bill which it is proposed to reimburse Chapman is in excess of the actual amount of money forfeited by him pursuant to the sentence of general court-martial, as part of the confinement of twenty-one months adjudged him was remitted, the sentence taking effect on July 5, 1905, and he was discharged from the service June 23, 1906.

Very respectfully,

V. H. METCALF, *Secretary.*

Hon. GEORGE E. FOSS,

*Chairman Committee on Naval Affairs,
House of Representatives.*

[No. 47.]

NAVY DEPARTMENT,
Washington, December 23, 1907.

FOR THE RELIEF OF BARTHOLOMEW DIGGINS—DEPARTMENT
LETTER.

DEAR SIR: Referring to your letter of the 20th instant, in relation to the bill (H. R. 8154) for the relief of Bartholomew Diggins, I have the honor to inclose herewith, as representing the present views of the Department on this measure, a copy of a report made by Mr. Secretary Long to the chairman of the Senate Committee on Naval Affairs, under date of March 12, 1902, on a similar bill (S. 4079, 57th Cong., 1st sess.) for the relief of Mr. Diggins.

Very respectfully,

V. H. METCALF, *Secretary.*

HON. GEORGE EDMUND FOSS,
*Chairman of Committee on Naval Affairs,
House of Representatives.*

NAVY DEPARTMENT,
Washington, March 12, 1902.

SIR: Referring to the bill (S. 4079) "for the relief of Bartholomew Diggins," and to your letter of the 22d ultimo with regard thereto, I have the honor to quote the following indorsement of the Bureau of Navigation, to which said measure was referred for report and recommendation:

Bartholomew Diggins enlisted in the United States Navy as a landsman on December 31, 1861, at Philadelphia, Pa. He served on board the *Princeton* until January 19, 1862, and on the *Hartford* until December 25, 1864, when he was honorably discharged. At Mr. Diggins's request the Bureau transmits copies of letters received by him from Admiral Porter, Admiral George Dewey, Rear-Admiral James E. Jouett, Rear-Admiral L. A. Kimberly, and Ex-Chief of Police William McE. Dye. A copy of General Order No. 391, granting Mr. Diggins a medal of honor, is also inclosed.

While fully recognizing the worth of the services performed by Mr. Diggins during the civil war, the Bureau can not recommend that the Department approve the enactment of the proposed legislation. The passage of such an act, it believes, would establish a harmful precedent and afford opportunities for applicants less deserving than Mr. Diggins to enjoy privileges out of all proportion to the value of any services they may have performed.

The papers mentioned in the Bureau's indorsement are inclosed herewith. A copy of an indorsement, dated March 8, 1902, of Rear-Admiral John C. Watson, to whom was referred a recent letter of Mr. Diggins concerning his services on board the *Hartford* (Admiral Farragut's flagship) during the civil war, is also annexed.

As will be seen from the inclosed copy of the general order referred to above, Mr. Diggins was granted a medal of honor for gallant and meritorious conduct in the presence of the enemy, having been commended by name in the official report of the officer commanding the gun division in which he served on the *Hartford* on the 5th of August, 1864, in the action against Fort Morgan and the enemy's vessels in Mobile Bay; having served with credit in all the engagements in

which the *Hartford* participated during the years 1862, 1863, and 1864; and having been four times wounded.

The objection to this bill is that, as Mr. Diggins, after his discharge as an ordinary seaman, December 25, 1864, by reason of the expiration of his term of enlistment, did not reenlist, he has not been in active service for over thirty-seven years. He has probably received such benefits as the general law provides for meritorious services in the civil war. His case is like that of other men with excellent records who, after serving during the war, were honorably discharged, and have since remained in civil life; and it is for Congress to say whether a precedent should now be established for putting such men on the retired list for life, and also whether, even if this were done in the present instance, Mr. Diggins should have the rank of chief boatswain when there are subordinate grades, such as boatswain, boatswain's mate, etc., between that rank and the rating (ordinary seaman) which he held when discharged.

Very respectfully,

JOHN D. LONG, *Secretary.*

HON. EUGENE HALE,
Chairman Committee on Naval Affairs,
United States Senate.

NAVY DEPARTMENT,
Washington, D. C., April 16, 1890.

To whom it may concern:

I take with pleasure this opportunity of voicing my estimation of Barth Diggins, the present captain of the watch of the State, War, and Navy Departments.

From personal knowledge I know that this most gallant old veteran is the right man—one thoroughly imbued with an appreciation of discipline and precision—in the right place. He has performed his duties in his present position with the same untiring adherence to the obligations imposed upon him that he displayed during the many desperate encounters in which he was engaged during the war, and where he was three times wounded, as supposed at the time mortally.

It is this man, one who has so justly earned the admiration and gratitude of his Government, whose character and loyalty is now assailed, and particularly by those who in no way aided to preserve this Government in those trying times.

Would any man, true and leal, ask more than the picture of these facts to awaken his honest sympathy and praise for one who did so bravely his part toward perfecting the peace and happiness we now enjoy? If he could, he would but defile the names of those noble men who died to found the freedom of our glorious country.

I earnestly hope those intrusted with the administration of this Government will see that this gallant old sailor, who fought side by side with Admiral Farragut, is not dishonored by removal from his present position, and the means of earning, in his age, the salt he so justly deserves.

Very sincerely,

JAS. E. JOUETT,
Rear-Admiral, U. S. Navy.

I indorse this letter in all respects.

DAVID D. PORTER, *Admiral.*

OFFICE OF THE ADMIRAL,
Washington, D. C., June 21, 1887.

To whom it may concern:

Mr. B. Diggins has applied to me to give him a recommendation and to certify to his services, which I most cheerfully do, knowing him to have been a most faithful servant of the Republic all through the civil war, where he served with Admiral Farragut in all his naval battles and was four times wounded, twice severely. Owing to his conspicuous bravery and his close association with the Admiral (being one of his barge's crew), I detailed him to unveil the Farragut statue when it was dedicated in this city, a compliment intended for Mr. Diggins's faithful services.

Mr. Diggins is an applicant for the position of captain of the watch of the State, War, and Navy Department building. He now holds the position of sergeant of police in the Washington force, which is a good guaranty of his ability. He comes specially under the law of Congress providing that those who fought for the Union should have preference over others, providing they were efficient to perform the service. In this respect, Mr. Diggins has more than an ordinary claim.

Under the circumstances, I do not hesitate to recommend him strongly for the office he desires to obtain, being satisfied that he will perform all his duties in the most faithful manner.

Very respectfully,

DAVID D. PORTER,
Admiral U. S. Navy.

JUNE 21, 1887.

The within is a deserved recommendation. I have known the applicant for several years. He came upon the police force of this city while I was its chief. His efficient performance of duty and good habits soon attracted my attention, when he was advanced step by step to the position he now holds. His experience and natural aptitude for the position he seeks would, I am sure, enable him to give full satisfaction to his superiors.

I hope he may be given an opportunity to show his efficiency as an officer and his loyalty.

WM. McE. DYE.

NAVAL EXAMINING BOARD, NAVY-YARD,
Washington, March 8, 1902.

Respectfully returned to Navy Department with the statement that, to the best of my knowledge and belief Mr. Bartholomew Diggins, captain of the watch, State, War, and Navy Department building, is the only one now living of those who fought in the U. S. flagship *Hartford* in all the engagements in which she took any part during the war for the preservation of the Union. And though, besides this, his own personal record is so fine as not to require any backing, I give myself the pleasure of vouching for the accuracy of his statements and for his having faithfully earned his medal of honor.

I earnestly request approval of the proposed bill to appoint him a chief boatswain on the retired list of the Navy.

J. C. WATSON,
Rear-Admiral, U. S. Navy.

U. S. FLAGSHIP HARTFORD, [REDACTED]
Mobile Bay, at sea December 3, 1864.

This is to certify that Barth. Diggins (ordinary seaman) was attached to this ship from the 19th January, 1862, up to present date and served in all the engagements this ship participated in up to date, viz: Fort Jackson, Chalmette Battery, Grand Gulf, Fort St. Phillip, Port Hudson, Vicksburg, etc., and all the engagements on the Mississippi under Rear-Admiral Farragut; also at the capture of the forts, iron clads, and gunboats, in Mobile Bay.

Respectfully,

L. A. KIMBERLY,
Lieutenant-Commander and Executive Officer.

Approved:

P. DRAYTON, *Captain.*

WASHINGTON, D. C., *October 16, 1899.*

DEAR SIR: It is with great pleasure that I acknowledge the receipt, from Commander George W. Baird, U. S. Navy, of the flag of the late Admiral D. G. Farragut, kindly presented by you. None of the many gifts I have received has given me more pleasure than this, the flag of my great predecessor, and I beg that you will accept my sincere thanks for it.

The flag was flown at the main of the *Olympia* during the naval parade at New York, and will always be treasured as one of my most valued possessions.

Again thanking you, I am, very sincerely, yours,

GEORGE DEWEY.

BARTHOLEMEW DIGGINS, Esq.,
Captain of the Watch,
State, War, and Navy Department Building,
Washington, D. C.

GENERAL ORDER }
 No. 391. }

NAVY DEPARTMENT,
Washington, D. C., November 12, 1891.

A medal of honor is hereby granted to Bartholomew Diggins, late ordinary seaman, United States Navy, for gallant and meritorious conduct in the presence of the enemy, he having been commended by name in the official report of the officer commanding the gun division in which he served on the U. S. S. *Hartford*, on the 5th of August, 1864, in the action against Fort Morgan and the enemy's vessels in Mobile Bay, having served with credit in all the engagements in which the *Hartford* participated during the years 1862, 1863, and 1864, and was four times wounded.

B. F. TRACY,
Secretary of the Navy.

[No. 48.]

**NAVY DEPARTMENT,
Washington, February 20, 1908.**

**FOR RECOGNITION OF HEROIC SERVICES OF PATRICK DEERY—
DEPARTMENT LETTER.**

SIR: I have the honor to acknowledge receipt of your letter of February 8, 1908, transmitting a bill (H. R. 5768) "providing for the recognition of the heroic services of Chief Boatswain Patrick Deery, U. S. Navy," by giving him the pay and allowances of a lieutenant (junior grade); also a bill (H. R. 5789) "providing for the promotion of Chief Boatswain Patrick Deery, U. S. Navy," to be a lieutenant (junior grade) not in line of promotion.

This officer has a most excellent record as boatswain and chief boatswain in the Navy. He was commended by the Department in March, 1900, for jumping overboard in Manila Harbor and saving the life of an enlisted man of the Marine Corps who had fallen overboard. In April, 1904, he was again commended by the Department for jumping overboard from the U. S. S. *Peoria* when a very high sea was running, and, in intense cold, swimming to the submarine torpedo boats *Adder* and *Moccasin*, which had broken adrift during a gale, and making fast a line in his endeavor to prevent them from being lost. Again, in July, 1907, he was commended for successfully making a trip of over 30 miles in a small, open boat, for the purpose of obtaining assistance from the New York Navy-Yard for the U. S. S. *Pontiac*, after she had been disabled at sea.

Mr. Deery's record for bravery is conspicuously creditable, and the Department takes pleasure in attesting its appreciation of his services, which were valuable, not alone in their immediate effect, but as an example to others.

As to the manner and extent to which these services should be substantially rewarded, however—whether by promotion in rank and pay or in pay alone, or either—the Department believes that the question is properly one for determination by Congress.

Very respectfully,

V. H. METCALF, *Secretary*.

HON. GEORGE EDMUND FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives.*

NAVY DEPARTMENT,
Washington, D. C., February 13, 1908.

Record of the service of Chief Boatswain Patrick Deery, U. S. Navy.

November 7, 1858, born in Ireland.

May 5, 1897, appointed an acting boatswain in the Navy from this date. (Served for fourteen years and twelve days as an enlisted man in the Navy.)

May 26, 1897, to the U. S. S. *Vermont*. (Reported May 27.)

June 5, 1897, detached and to the U. S. S. *Richmond*. (Detached June 7, reported June 8.)

November 5, 1897, detached and to the U. S. S. *Minneapolis*. (Detached and reported November 6.)

March 4, 1898, detached and to the navy-yard, League Island, Pa., (Detached and reported March 5.)

March 10, 1898, detached and to the tug *Samoset*. (Detached March 10, reported March 11.)

March 25, 1898, assume command *Samoset*. (Assumed command March 26.)

November 19, 1898, warranted.

April 11, 1899, Detached command *Samoset* and to the U. S. S. *Glacier*, and report to commander in chief Asiatic Station on arrival. (Detached April 12, reported July 15.)

September 9, 1899, detached and to the U. S. S. *Monterey*.

February 19, 1900, detached and to the U. S. S. *Glacier*. (Detached February 19, reported February 20.)

January 6, 1901, detached and to the U. S. S. *Solace* for duty, and on arrival at Mare Island, Cal., report to commandant navy-yard for duty. (Detached and reported *Solace* January 16.)

February 25, 1901, detached, home and wait orders. (Detached February 25.)

March 21, 1901, to the navy-yard, New York, March 25. (Reported March 25.)

October 4, 1902, detached and to the U. S. S. *Nina*. (Detached and reported October 6.)

March 21, 1903, detached and to the navy-yard, New York. (Detached and reported March 21.)

July 17, 1903, detached and to the U. S. S. *Peoria*. (Detached July 20, reported July 21.)

April 27, 1904, promoted to chief boatswain from this date.

June 22, 1904, to examination for promotion, Washington, D. C., June 23 and return.

July 1, 1904, to physical examination for promotion, naval station, Narragansett Bay, Rhode Island, July 5, and return.

July 25, 1904, commissioned as a chief boatswain.

December 13, 1904, detached on relief and to duty on board the U. S. S. *Peoria*. (Detached and reported December 15.) (Was in command of the *Peoria* for a short time.)

August 7, 1906, detached, home and wait orders. (Detached August 22, home August 27.)

August 29, 1906, to the navy-yard, New York, N. Y., September 15. (Reported September 15.)

January 7, 1908, detached and to the U. S. S. *Des Moines*.

[No. 49.]

**NAVY DEPARTMENT,
Washington, January 31, 1908.**

FOR THE RELIEF OF JABEZ BURCHARD—DEPARTMENT LETTER.

SIR: In compliance with request contained in your letter of the 24th instant, I have the honor to submit herewith the following statement respecting the bill (H. R. 7843) for the relief of Jabez Burchard:

On October 26, 1874, Assistant Engineer Burchard was transferred to the retired list of the Navy for a physical disability which was not due to an incident of the service, in accordance with the provisions of section 1454 of the Revised Statutes.

The Department afterwards determined that the examining board was in error in finding Mr. Burchard's incapacity as not due to an incident of the service and attempted to transfer him to the higher rate of pay (three-quarters sea pay) allowed to officers by section 1588 of the Revised Statutes. The courts held that the Department did not have this authority, and Mr. Burchard has continued to be regarded as having been retired for disability which was not due to an incident of the service.

In view of these circumstances the Department recommends that the bill under consideration for the relief of Mr. Burchard be favorably reported.

Very respectfully,

V. H. METCALF,
Secretary

Hon. GEORGE EDMUND FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives.*

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[No. 50.]

STATEMENT OF PAY INSPECTOR COWIE BEFORE THE COMMITTEE ON NAVAL AFFAIRS—ON H. R. 17527.

Friday, February 21, 1908.

The committee met at 10.30 o'clock a. m., Hon. George Edmund Foss (chairman) in the chair.

The CHAIRMAN. We have Pay Inspector Cowie here, whom we will hear on the bill to equalize the pay of the Navy and the Marine Corps. You will remember that at the last session of the committee we desired a hearing on this, and we will hear from Pay Inspector Cowie for a few minutes. This bill, H. R. 17527, I introduced in the House, and Senator Dick introduced it in the Senate. I may say that I introduced the Dick bill. Senator Dick sent it to me and asked me to introduce it. It relates simply to the Navy and Marine Corps, and it is the Navy side of what may be called the Dick-Capron bill, which included both the Army and Navy.

The bill referred to is as follows:

A BILL To equalize and fix the pay of the Navy and the Marine Corps, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That hereafter the pay and allowances, except forage and mileage, which shall be governed by existing law, of all officers of the Navy and the Marine Corps shall be the same as the pay and allowances of officers of corresponding rank in the Army.

SEC. 2. That the pay of midshipmen, warrant officers, mates, and paymasters' clerks is hereby increased twenty-five per centum: *Provided*, That the pay and allowances of midshipmen after graduation at the Naval Academy shall be the same as that provided for second lieutenants of the Army, not mounted.

SEC. 3. That the pay of all commissioned, warrant, and appointed officers, and enlisted men of the Navy and the Marine Corps on the retired list shall hereafter be based on the pay, as herein provided for, of commissioned, warrant, and appointed officers, and enlisted men of corresponding rank and service on the active lists.

SEC. 4. That nothing herein contained shall be construed so as to reduce the pay or allowances now authorized by law for any commissioned, warrant, or appointed officer or any enlisted man on either the active or retired list of the Navy or Marine Corps, and that all laws or parts of laws inconsistent with the provisions of this act are hereby repealed.

Mr. BUTLER. Has a subcommittee considered this bill?

The CHAIRMAN. No; a subcommittee has not considered it, but there was a wish on the part of the members at the last meeting that we might hear from the Department in relation to this matter, and I said at that time that I would ask Pay Inspector Cowie, who has some knowledge of it, to come before the full committee so that they all might hear. If there is no objection, we will hear Mr. Cowie now.

Mr. PADGETT. I would like to ask one question.

The CHAIRMAN. Certainly.

Mr. PADGETT. What is the status of the general bill—what you might call the Capron bill—which includes a reorganization of the pay of both Army and Navy?

The CHAIRMAN. I wish the pay inspector would tell us, because he has been before the Military Committee and understands the whole situation.

STATEMENT OF PAY INSPECTOR COWIE, U. S. NAVY.

Pay Inspector COWIE. The Military Committee have reported out with the army appropriation bill a provision for the enlisted men of the Army only. I understand that it is their intention to consider, and they are still considering, the proposition as to officers.

Mr. PADGETT. Does that bill carry with it the appropriation carrying the Navy in connection with the Army, that the naval officers get the same increase from five up to twenty, or ten up to twenty, whichever it is?

Pay Inspector COWIE. Under the present law the line, medical, and pay officers of the Navy get the same pay and allowances as officers of corresponding rank in the Army.

Mr. PADGETT. You are speaking of the Marine Corps now?

Commander COWIE. The Marine Corps get the same pay as the Army, both the officers and the enlisted men.

Mr. PADGETT. What I wanted to get at is this: Is the Dick bill limited only to the increase of the officers in the Army, or does it carry with it the increase of the Navy as well as the Army?

Pay Inspector COWIE. The original Dick-Capron bill, which was introduced by Senator Dick and by Mr. Capron, covered the Army, Navy, and Marine Corps and the Revenue-Cutter Service.

Mr. PADGETT. I understand that it did. If that is true, and if that is to be reported, what will be the effect of this on that bill, or what would be the necessity of considering this if the other is to go along too?

Pay Inspector COWIE. In the Senate there was a separate bill introduced by Senator Hale for the Navy, and then Senator Warren introduced a separate bill for the Army. Senator Dick later introduced one covering the Navy, and Mr. Foss has introduced the same bill in the House for the same purpose.

Mr. PADGETT. So that if the Capron bill should go through, then theirs would not be necessary. but if those fail, this is a separate measure?

Pay Inspector COWIE. Yes, sir; as it takes care of all officers of the Navy who would not receive an increase by Senator Warren's bill. Mr. Warren's bill provides for the Army and carries the line, medical, and pay corps of the Navy with it. This bill provides for all other commissioned, warrant, and appointed officers and midshipmen, as carried by the original Dick-Capron bill.

Mr. PADGETT. I wanted to get the situation, so far as the legislative situation was concerned.

The CHAIRMAN. Now will you explain the bill?

Pay Inspector COWIE. The original bill was House bill No. 2.

Mr. MUDD. This is not House bill No. 2 we have here.

Pay Inspector COWIE. No; but this is based on House bill No. 2. House bill No. 2 provides an increase of 10 per cent for generals and lieutenant-generals, 15 per cent for major-generals and brigadier-generals, 20 per cent for colonels, lieutenant-colonels, and majors, and for captains, first lieutenants, and second lieutenants 25 per cent. That is the section which is left out of House bill 17527, which simply provides "that hereafter the pay and allowances, except forage and mileage of all officers of the Navy and Marine Corps, shall be the same as the pay and allowances of officers of corresponding rank in the Army," in order that the Navy may have the same pay.

The CHAIRMAN. What is the present law on that point? Does not the present law say that the pay of the Navy shall be the same as may now or may hereafter be provided for the Army?

Pay Inspector COWIE. For the line, medical, and pay corps it does.

The CHAIRMAN. Yes.

Pay Inspector COWIE. That leaves out constructors, civil engineers, chaplains, and professors of mathematics, also midshipmen, warrant officers, mates, and paymasters' clerks, all of whom are covered by this bill.

Mr. BUTLER. Which law do you refer to?

The CHAIRMAN. The present law.

Pay Inspector COWIE. Yes; the present law leaves those officers out, and there is a different pay for each of those four branches of the service.

The CHAIRMAN. Would this provision include the other corps?

Pay Inspector COWIE. It includes all, that is the object of the bill, and the best point in it is that it puts all officers of corresponding rank, no matter in what service or of what corps, on exactly the same footing as to pay and allowances. An officer of the Marine Corps or the Navy ranking with an officer in the Army will by this bill receive exactly the same pay and allowances. All will be placed on a consistently equal footing and there will be but one pay for all officers of the same rank and length of service. This will do away with the many different rates of pay for officers of the same rank, but in different corps, which have caused such trouble and discord and have been a continual source of trouble to disbursing and accounting officers for years, and it has always been a subject of annoyance in the different services, one branch getting more than another, although having exactly the same rank. In this bill which Mr. Foss has introduced there is a provision in regard to the midshipmen which is not in the original Dick-Capron bill. It provides that the pay and allowances of midshipmen after graduation at the Naval Academy shall be the same as that provided for second lieutenants of the Army, not mounted. The military cadets as soon as they graduate become second lieutenants, while the midshipman has to go to sea on \$950 a year and practically perform the duties of an ensign, and for two years he gets this \$950, while the cadet upon graduating from the Military Academy gets \$1,400 or \$1,500, being commissioned second lieutenant upon graduation.

The CHAIRMAN. Does he get his commission about the same age as the graduate from West Point?

Pay Inspector COWIE. Practically at the same age.

The CHAIRMAN. Yes. A man who goes into the Naval Academy goes in at a younger age, probably a year and a half younger on the average?

Pay Inspector COWIE. That is very true.

The CHAIRMAN. And while he does not get his commission until the end of the two years' sea course, yet really he gets it about the same age as the West Point man; is not that true?

Pay Inspector COWIE. He gets it about the same age.

Mr. PADGETT. The age of retirement is the same in the Army and Navy?

Pay Inspector COWIE. No, sir; the age in the Army is 64 and in the Navy 62, but since midshipmen enter younger the time spent on the active list is about the same as in the Army.

Mr. HOBSON. There is another point, Mr. Chairman; I would like to remark that I have been a midshipman on that two years' cruise, and it is right hard to get along on the midshipman's pay, and those midshipmen are doing fully as responsible duty as, and perhaps more responsible duty than, the second lieutenant in the Army.

Pay Inspector COWIE. The point of this is that the midshipmen are sent out into the service in debt. A midshipman leaves the Academy in debt, and the amount they receive in that two years' cruise is not enough to cover their expenses. I have a statement here bearing on that subject, which will give you gentlemen some light on the matter. The passed midshipman should either be commissioned ensigns upon graduation at the Academy at the end of four years, or given the pay and allowances of graduates from West Point. I would like to read a part of the statement. I am sure it will interest the committee.

THE PAY OF "PASSED" MIDSHIPMEN.

It may be proper to admit in the start that there is no such grade or rank as "passed" midshipman, but there should be, and unofficially there is. For two years after graduation a midshipman is not a midshipman as that title was originally intended and as it is now understood. A midshipman is a student at the United States Naval Academy just as a cadet is a student at the United States Military Academy. When the cadet is graduated he is assigned to the duty of a second lieutenant and is immediately commissioned a second lieutenant with pay of \$1,400 and \$1,500 and allowances. The midshipman when graduated is assigned to the duty of an ensign (corresponding grade of second lieutenant) but remains in grade with students at the Naval Academy and receives not \$1,400 or \$1,500 as his Army cousin receives, but a paltry \$950 per annum for two years. His status is worse than while at the Naval Academy, for during these two years he has no rights under the pension laws. His status is so peculiar and unique that for the very purpose of clear designation he has been and is unofficially graded as a "passed" midshipman. Why isn't he commissioned an ensign? The ships need ensigns and have no official scope of duty for midshipmen. The regulations have no work for a "midshipman"—no more than an Army regiment has a place for a "cadet"—passed or otherwise.

But it is not his "title" that makes this "oversight" a most serious matter. It is not the impolitic partiality which the Government bestows upon the Army boy that makes this "oversight" a most pitiful thing. It is the fact that at \$950 for two years the midshipmen have no possible escape from a burden of immovable, increasing debt that would send the clerk or mechanic to destruction. The midshipman knows at graduation that he is to plunge head over heels into a very vortex of debt that will try his very soul. He is sent to occupy the place of an ensign—to perform the duty, official and social, of an ensign of the United States Navy—and he knows in advance that \$950 per year will not reach two-thirds of his obligations. A young man in civil life who goes beyond his depths does so voluntarily. The graduated midshipman has no choice. It speaks well for the training of the Naval Academy and its high standard of honor that all these graduated midshipmen do not give up in despair and bring disgrace upon their names and service.

The CHAIRMAN. What are his obligations? Do you give them there?

Pay Inspector COWIE. Yes; this statement gives a modest estimate of the expenses after leaving the Academy; in fact, from the time they enter, or leave home, all of which must be taken into consideration.

I will read more of the statement:

A very careful and economical lieutenant, having no bad habits and living as modestly as his position and the regulations would permit, has just succeeded after eight years and four months of worry and strife in paying off his indebtedness, and for the

first time since graduation has a dollar he can call his own. Isn't it a shame? God help the boy who does not know how to economize and who can not learn. If inclined to recklessness, it looks as if the path to hell was greased for him. Isn't it a fact that the Secretary of the Navy virtually says to these graduates:

"I give you this diploma and hereby install you into the naval service of your country, in which service we will require you for two years to expend \$1,500 per year, for which the Government will pay you \$950 per year."

The Secretary has said, "You must never expect to be wealthy;" but *we do* expect to earn a living for our family, and this is all we ask and expect from the Government. (Reading continued:)

In the first place 75 per cent of boys who enter the Naval Academy have obligated themselves to pay some one the expense incidental to entrance. Perhaps in many cases it is "father," and father has said, "Never mind, my boy; perhaps I won't need it. Don't let that worry you." But in many cases the money has been borrowed from friends of the family and notes given which must be met sometime. It is surely a part of the financial statement in any event. Some midshipmen forfeit the pleasures of their annual thirty days' leave and take the railroad fare and pay interest on notes at home and live obscurely near Annapolis until the thirty days expire. When a boy is appointed he is advised by all who know to take special instructions so that he can pass the examination. He is solicited by mail by several teachers who make West Point and Annapolis preparation a specialty. It is probably necessary to go to one of these teachers for three months at least, so it will cost about as follows:

Railway fare to preparatory school, average.....	\$16
3 months' tuition.....	90
3 months' room rent.....	36
3 months' board.....	72
Incidentals.....	30

Total..... 244

Mr. PADGETT. How do you get that information?

Pay Inspector COWIE. We know that.

Mr. PADGETT. I am very much surprised. I do not think that would apply to boys from my part of the State.

Mr. LOUD. It would apply to both of mine.

Pay Inspector COWIE (continuing, says):

The Navy Regulations require each midshipman on date of entrance to deposit in cash..... \$269

Total at entrance.....	513
At graduation very few have to their credit in their equipment fund more than..	250

In debt to some one at graduation..... 263

We at the Naval Academy try to have boys save enough to pay for their uniform when they leave, and for that reason we reserve \$7 per month from their pay, or try to do so, but in many cases it can not be done. Some of the boys are poor, and very often at home there is sickness, or something of that sort, when special requisitions are granted which reduce the reserve.

Mr. PADGETT. Let me inject this right there. On entering the boy deposits \$269. At the semiannual examination, six months later, suppose he fails and drops out of the institution; is that lost to him, or does he get any part of it?

Pay Inspector COWIE. He gets a part of it, providing it has not been used up in the meantime for his clothing and other outfit. That \$269 is deposited there for the purpose of paying for his books and clothing and paying other incidentals. So you see when he is graduated he is in debt to some one for \$263.

Mr. HOBSON. I do not mean to interrupt you, but \$250 was very high for my day.

Pay Inspector COWIE. As I say, we have increased the reserve by making it \$7 instead of \$5 that is reserved each month. It has in fact been increased, I think, to \$10 per month since last September. Everything possible is done at the Academy to start the boys off with as little debt as possible. The only way in which they can ever start on their cruise free of debt is by an increase of pay. [Reading:]

The regulations require complete uniforms, etc., at graduation, and the only garment he can convert and use are overcoat, blouse, and trousers. All his expensive academy outfit is lost to him. The following is a list of what "uniforms" will cost the graduated midshipman:

Full dress uniform.....	\$64. 00
Frock coat.....	37. 00
Cloth blouse (new).....	30. 00
Undress trousers.....	13. 00
Serge blouse.....	25. 00
Serge trousers.....	10. 00
6 white linen blouses.....	54. 00
6 white linen trousers.....	30. 00
1 boat cloak.....	32. 00
2 mess jackets.....	18. 00
2 white vests.....	10. 00
1 oilskin coat and hat.....	9. 00
1 dress cap, blue.....	7. 00
1 cap, blue.....	5. 00
1 white cap.....	6. 25
2 pair marks.....	4. 00
1 gilt knot.....	5. 50
1 gilt sword knot.....	1. 75
1 sword.....	16. 50
1 belt.....	4. 00
1 dress belt.....	14. 00
1 mackintosh.....	14. 00
1 white helmet.....	4. 00
1 pair patent leather shoes.....	4. 00
6 white shirts for uniforms.....	12. 00
1 pair white kid gloves.....	1. 50
Converting academy overcoat.....	5. 00
Converting academy blouse.....	5. 00
Total.....	441. 50

The CHAIRMAN. Do they have to have that?

Pay Inspector COWIE. Yes, sir.

The CHAIRMAN. Is that required by regulations?

Pay Inspector COWIE. Yes, sir; that is required by regulations, and a great many more things. This estimate, as I have said before, is very modest.

The CHAIRMAN. Before they go on this two years' sea trip, they have to pay out what?

Pay Inspector COWIE. Four hundred and forty-one dollars and fifty cents, which I repeat is a very modest estimate, and this is for uniform only.

Mr. HOBSON. It would probably be very much more than that.

Mr. GREGG. That is the outfit of a midshipman. When he becomes an ensign he has to change his stripes, and many other things.

Pay Inspector COWIE. Yes. All promotions are expensive for a time and uniforms must necessarily be renewed occasionally. (Reading:)

Graduates have very little of any kind of civilian clothing and what they have is of too ancient a style to be worn by an "officer of the United States Navy," who, while on graduation leave, must have a civilian outfit. As a graduate he will and should be invited to various functions, day and evening. He will be expected even to go to church in proper clothes, because he is an officer in the Navy.

Mr. HOBSON. They order him to do so. They used to detail us to go to these functions. They used to order them to send up five midshipmen to go ashore to such and such a function at such and such a place.

Pay Inspector COWIE. (Reading:)

He will be expected even to go to church in proper clothes, because he is an officer in the Navy, so he must have the following by the day he graduates. The uniform can not be worn at the affairs he will be invited to, so he must order an outfit of civilian clothing costing, on an average, \$303.50.

Mr. GREGG. The social functions require them to have those things.

The CHAIRMAN. I do not know but what they pay too much attention to functions.

Mr. HOBSON. The poor midshipmen are not responsible for that. We have not one-tenth what they have in other services, but there are funds in other services to pay for these things.

Mr. ———. As I understand, the reason of that extra two years' service is to prevent the boys from retiring to civil life after receiving their education; it is really to get two years' more work out of them, is it not, as compensation for the education they have received? Otherwise I presume a good many would resign.

Pay Inspector COWIE. Yes. A great many do resign, but their resignations are seldom accepted, and only recently several have resigned and gotten appointments to West Point; and it is simply this thing of starting out from the Naval Academy in debt that makes them want to go to West Point instead of remaining in the Navy. If the pay were equalized it would not be so. There is at present a large number of vacancies at the academy. Continuing with the reading of this:

He might hide some place incognito during his enforced leave and save some of the largest of these items, but as soon as he joins ship he will be invited ashore by good families to whose homes he can not go in uniform. So at best this expense could only be deferred a few days at most.

Now let us make a first consolidation of items, with which he finds himself burdened the day he leaves the academy. His mileage allowance will be needed to pay his expenses to his home, and if it should be liberal he will need money to pay his expense at home and among his home friends.

Condition at graduation:

Amount owing on entrance net of equipment fund.....	\$263. 00
Amount owing for uniforms.....	441. 50
Amount owing for civilian outfit.....	303. 30

In debt at graduation.....	1, 007. 80
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Soon he receives orders to join ship, but before leaving home (if he is prudent and thoughtful) he will have taken sufficient endowment insurance to protect his creditors in case of death and perhaps a few dollars to some loved one at home, who in many cases need it badly if he be "taken

away." When he reaches ship he learns that his fixed expenses for twenty-four months will be—

For mess bills, laundry, bedding, assessments for entertaining, uniform, renewals, life insurance, and necessary incidentals, about.....	\$2, 188. 00
Total for two years.....	3, 195. 80
By two years' pay.....	1, 900. 00
In debt at end of two years.....	1, 295 80

And the trouble is that he has to spend it.

The CHAIRMAN. Please put the whole statement in the hearings. Section 3 of this bill reads:

SEC. 3. That the pay of all commissioned, warrant, and appointed officers, and enlisted men of the Navy and the Marine Corps on the retired list shall hereafter be based on the pay, as herein provided for, of commissioned, warrant, and appointed officers, and enlisted men of corresponding rank and service on the active lists.

Pay Inspector COWIE. I would like to speak of the words "and appointed." We put in section 2 after "warrant" in the original Dick-Capron bill "and appointed" for the purpose of covering paymasters' clerks and mates. That is necessary to provide for paymasters' clerks and mates, who were omitted in the original bill.

The CHAIRMAN. They are appointed now?

Pay Inspector COWIE. Yes, they are appointed officers. That would cover them. The retired list is given the same pay and allowances, or rather their pay is based on the pay and allowances of this bill in order to give them three-fourths of the pay of the active list and in order to equalize the pay of all officers as the bill provides.

Mr. PADGETT. Under section 3 do I understand that you are making the pay of men on the retired list the same as the pay of the corresponding men on the active list?

Pay Inspector COWIE. No; to be based on the pay of the active list. It says "That the pay of all commissioned, warrant, and appointed officers, and enlisted men of the Navy and the Marine Corps on the retired list shall hereafter be based on the pay," and so forth. In other words, they would get three-fourths of the pay in this bill, instead of three-fourths of their present pay; otherwise, officers who served during the civil war, admirals, and the rest of them, would get less pay the day this bill passed than officers who were retired on that date, and who must be many many years the juniors of those who are at present on the retired list.

Mr. PADGETT. In other words, if we provide for the future, we must necessarily go and provide for every fellow in the past who took his retirement under the laws then existing, and must just continually carry forward the back list in the future?

Pay Inspector COWIE. Yes; this would provide pay for them based on the pay of officers of the grade. This would be proper equalization. They retired on three-fourths the pay of their rank and should continue to receive that proportion. The necessity for an increase applies to all.

Mr. BUTLER. Will you please furnish this committee with a memorandum showing the amount of money paid each warrant officer, each noncommissioned officer, each enlisted man in the Navy now, and the amount by which his salary will be increased if this bill should become a law? I mean by that, beginning with the rear-admiral of the Navy and ending with the midshipman at the Academy, beginning again with the warrant officer and ending with the enlisted

man, put down opposite the name of each one the salary that he receives under the present law and the amount that he will receive under this bill if it becomes a law?

Pay Inspector COWIE. I can give you the present pay and the proposed pay.

The CHAIRMAN. Then can you give us the total amount of the increase for the whole business?

Pay Inspector COWIE. I can.

The CHAIRMAN. How much will it amount to, all told?

Pay Inspector COWIE. For the officers in the active list \$1,610,324. Retired officers, \$395,862. Retired officers performing active duty, extra, \$34,806. For the enlisted men, provided the committee increase their pay 10 per cent, \$1,592,400 for the active enlisted men and \$11,635 for the retired enlisted men.

Mr. GREGG. There is nothing in this bill, is there, about the enlisted men?

Pay Inspector COWIE. No, sir; there is nothing about the enlisted men.

Mr. GREGG. This is all officers?

Pay Inspector COWIE. All officers. The pay of the enlisted men of the Navy is to-day fixed by the President under a limit of the appropriations made by this committee. For instance, the appropriation estimated for the enlisted men for the fiscal year 1909 is \$15,444,000. If it be the sense of the committee that the pay of the enlisted men should be increased by 10 per cent, as is desired, and is shown on this statement of estimates, it will require \$1,544,400 more, making a total of \$16,988,400 for the enlisted force.

The CHAIRMAN. Now, what would the whole thing cost? You will put that table in, but give us the full amount.

Pay Inspector COWIE. The full amount would be \$3,645,027.

Mr. HOBSON. Increase?

Pay Inspector COWIE. Increase; without, however, taking into consideration the question we're talking of, for midshipmen.

The CHAIRMAN. Add that to it, and what will it cost?

Pay Inspector COWIE. That would make a difference of \$450 in each case; \$140,400 for 312 midshipmen based on present pay for second lieutenants and midshipmen.

Mr. PADGETT. What are you estimating the increase of that bill; how much are you estimating a year?

Pay Inspector COWIE. For the midshipmen?

Mr. PADGETT. Yes.

Pay Inspector COWIE. That would be \$140,400.

Mr. PADGETT. But how many do you estimate for?

Pay Inspector COWIE. Three hundred and twelve, the number at sea to-day by the Navy Register of July 1, 1907, which is the latest I have.

Mr. PADGETT. That would be controlled somewhat by the graduation?

Pay Inspector COWIE. Certainly.

Mr. PADGETT. It might be more or less?

Pay Inspector COWIE. Yes; I have simply based this on the number of passed midshipmen as shown by the July Register, taking \$450 in each case, which is the difference between their present pay and that of a graduate at West Point.

Mr. PADGETT. That is what I supposed, but it might be more or less?

Pay Inspector COWIE. It might be more or less. That could not be an exact figure. The cost will depend on the number of passed midshipmen each year to be estimated for by the Department.

The CHAIRMAN. Put all those figures in your hearing. Section 4 of the bill reads:

SEC. 4. That nothing herein contained shall be construed so as to reduce the pay or allowances now authorized by law for any commissioned, warrant, or appointed officer or any enlisted man on either the active or retired list of the Navy or Marine Corps, and that all laws or parts of laws inconsistent with the provisions of this act are hereby repealed.

Pay Inspector COWIE. In the case of some officers, principally in the case of the construction corps, this would not increase their pay at present; it would rather reduce their pay if they were put at once on the same pay and allowances, and consequently there is this provision providing that nobody's pay shall be reduced. The provision is necessary to protect such officers.

The CHAIRMAN. Put all those other papers in the hearing.

At 11.55 o'clock a. m. the committee adjourned.

Statement showing estimates and increase necessary under "Pay of the Navy," based on the Dick-Capron pay bill to equalize the pay of the Army, Navy, Marine Corps, and Revenue-Cutter Service, and for other purposes.

	Amount necessary under present law.	Estimate under Dick-Capron bill.	Increase over estimate fiscal year 1909.
3,164 officers, active list.....	\$6,731,868	\$8,177,639	\$1,445,974
Commutation quarters for officers.....	275,000	275,000	
950 midshipmen under instruction.....	475,000	593,750	118,750
716 officers, retired list.....	2,124,479	2,520,341	395,862
157 retired officers, active duty, extra pay.....	139,405	174,211	34,806
185 clerks (25 per cent increase for 151 pay clerks).....	231,500	277,100	45,600
39,000 petty officers, seamen, enlisted men (pay and allowances).....	15,444,000	16,983,400	1,544,400
2,500 apprentice seamen at training station and on practice ships.....	460,000	528,000	68,000
202 enlisted men on the retired list.....	116,352	127,987	11,635
Interest on deposits by enlisted men, act of February 9, 1892.....	44,000	44,000	
Total.....	26,061,001	29,706,628	3,645,627

ENLISTED MEN.

The above estimates include an increase of 10 per cent over the amounts required by the regular estimates for enlisted men on the active and retired lists. If the proposed bill should become a law, the Navy Department will request the President to approve a pay schedule which will average about 10 per cent more than the present pay for enlisted men.

Increase in appropriation "Pay of the Navy, 1909," by the Dick-Capron pay bill.

Officers on the active list.....	\$1,610,324
Officers on the retired list.....	395,862
Retired officers performing active duty, extra pay.....	34,806
Enlisted men on the active list.....	1,592,400
Enlisted men on the retired list.....	11,635
Total.....	3,645,027
Increase for passed midshipmen if given the pay of second lieutenants as increased as proposed estimate.....	249,600
	3,894,627

Summary of increase in appropriation "Pay of the Navy, 1909," by Dick-Capron pay bill.

Pay, officers' active list.....	\$1, 610, 324
Pay, officers' retired list.....	395, 862
Extra pay, retired officers performing active duty.....	34, 806
	<hr/>
Enlisted men, active list.....	2, 040, 992
Enlisted men, retired list.....	1, 592, 400
	<hr/>
Total increase for Navy.....	3, 645, 027

MEMORANDUM.

Details of increase over amounts estimated for fiscal year 1909 under the appropriation "Pay, Marine Corps," which are necessary in the event of the "Capron bill" becoming the law:

	Amount necessary to pay at pres- ent rates of pay.	Amount necessary to pay at pro- posed rates of pay.	Increase over and above amounts con- tained in es- timates for fiscal year 1909.
Officers, active.....	\$609, 713	\$760, 520. 25	\$150, 807. 25
Officers, retired.....	115, 000	139, 410. 00	24, 410. 00
Enlisted men, active.....	1, 647, 576	2, 085, 272. 25	437, 696. 25
Enlisted men, retired.....	84, 469	102, 475. 00	18, 006. 00
Total.....	<hr/> 2, 456, 758	<hr/> 3, 087, 677. 50	<hr/> 630, 919. 50

Estimates based on present pay of officers on the active list of the Navy.

Rank.	Amount.	Total.
1 Admiral of the Navy.....	\$13, 500	\$13, 500
10 rear-admirals (major-general).....	7, 500	75, 000
1 rear-admiral (major-general, chief of bureau).....	7, 500	7, 500
11 rear-admirals (brigadier-general).....	5, 500	60, 500
3 captains (chiefs of bureau).....	5, 500	16, 500
1 captain (Judge-Advocate-General).....	4, 500	4, 500
3 captains (assistants to bureau).....	4, 500	13, 500
75 captains (after 20 years' service).....	4, 500	337, 500
1 captain (after 20 years' service; beyond seas).....	4, 950	4, 950
122 commanders (after 20 years' service).....	4, 000	488, 000
4 commanders (after 20 years' service; beyond seas).....	4, 400	17, 600
205 lieutenant-commanders.....	3, 500	717, 500
4 lieutenant-commanders (beyond seas).....	3, 850	15, 400
125 lieutenants (after 5 years from date of commission; old pay).....	2, 600	325, 000
230 lieutenants (first 5 years after date of commission; old pay).....	2, 400	552, 000
4 lieutenants (first 5 years after date of commission; beyond seas).....	2, 640	10, 560
8 lieutenants (junior-grade; second 5 years).....	1, 800	14, 400
417 ensigns.....	1, 540	642, 180
385 midshipmen (performing duty at sea).....	950	365, 750
		<hr/> 3, 681, 840
1 medical director (chief of bureau).....	5, 500	5, 500
14 medical directors (captains, after 20 years' service).....	4, 500	63, 000
13 medical inspectors (commanders; old pay).....	4, 400	57, 200
2 medical inspectors (fleet surgeons; old pay).....	4, 400	8, 800
1 surgeon (assistant to bureau; old pay).....	4, 200	4, 200
20 surgeons (lieutenant-commanders, after 20 years' service).....	3, 500	105, 000
1 surgeon (lieutenant-commander, after 20 years' service; beyond seas).....	3, 850	3, 850
18 surgeons (lieutenant-commanders, fourth 5 years).....	3, 500	63, 000
31 surgeons (lieutenant-commanders, third 5 years).....	3, 250	100, 750
3 surgeons (lieutenant-commanders, second 5 years; beyond seas).....	3, 575	10, 725
3 surgeons (lieutenant-commanders, second 5 years).....	3, 000	9, 000
10 passed assistant surgeons (after 5 years from date of appointment; old pay).....	2, 400	24, 000
114 passed assistant surgeons (lieutenants, second 5 years, since July, 1899).....	2, 400	273, 600
5 passed assistant surgeons (lieutenants, second 5 years, since July 1, 1899; be- yond seas).....	2, 640	13, 200
96 assistant surgeons (lieutenants, junior-grade, second 5 years).....	1, 920	188, 160
3 assistant surgeons (lieutenants, junior grade second 5 years; beyond seas).....	2, 112	6, 336
25 acting assistant surgeons (after 5 years from date appointment; old pay).....	1, 400	35, 000
		<hr/> 971, 321

Estimates based on present pay of officers on the active list of the Navy—Continued.

Rank.	Amount.	Total.
1 pay director (chief of bureau).....	\$5,500	\$5,500
13 pay directors (captains, after 20 years' service).....	4,500	58,500
1 pay inspector (assistant to bureau; old pay).....	4,400	4,400
2 pay inspectors (fleet paymasters; old pay).....	4,400	8,800
12 pay inspectors (commanders; old pay).....	4,000	48,000
5 paymasters (lieutenant-commanders, third 5 years; old pay).....	3,250	16,250
41 paymasters lieutenants, second 5 years; old pay).....	3,200	131,200
2 paymasters (lieutenants, second 5 years; old pay; beyond seas).....	3,520	7,040
26 paymasters (lieutenants, second 5 years, since July 1, 1899).....	2,400	62,400
2 paymasters (lieutenants, second 5 years, since July 1, 1899; beyond seas).....	2,640	5,280
23 passed assistant paymasters (lieutenants, second 5 years since July 1, 1899).....	2,400	67,200
2 passed assistant paymasters (lieutenants, second 5 years since July 1, 1899; beyond seas).....	2,640	5,280
13 assistant paymasters (lieutenants, junior grade, second 5 years).....	1,920	24,960
1 assistant paymaster (lieutenant, junior grade, second 5 years; beyond seas).....	2,112	2,112
49 assistant paymasters (ensigns, after 5 years).....	1,650	80,850
3 assistant paymasters (ensigns, after 5 years; beyond seas).....	1,815	5,445
		533,217
5 chaplains (lieutenant-commanders, after 20 years' service).....	3,500	17,500
4 chaplains (lieutenant-commanders, fourth 5 years).....	3,250	13,000
2 chaplains (lieutenant-commanders, fourth 5 years; beyond seas).....	3,575	7,150
5 chaplains (lieutenant-commanders, third 5 years).....	3,250	16,250
7 chaplains (lieutenants; old pay).....	2,800	19,600
1 chaplain (lieutenant, junior grade, second 5 years).....	1,800	1,800
		75,800
6 professors of mathematics (fourth 5 years).....	3,500	21,000
4 professors of mathematics (third 5 years).....	3,000	12,000
4 professors of mathematics (second 5 years).....	2,700	10,800
		43,800
1 naval constructor (chief of bureau).....	5,500	5,500
16 naval constructors (after 20 years).....	4,200	67,200
8 naval constructors (fourth 5 years).....	4,000	32,000
5 naval constructors (third 5 years).....	3,700	18,500
45 assistant naval constructors (after 8 years).....	2,600	117,000
		240,200
1 civil engineer (chief of bureau).....	5,500	5,500
4 civil engineers (fourth 5 years).....	3,500	14,000
10 civil engineers (third 5 years).....	3,000	30,000
14 civil engineers (second 5 years).....	2,700	37,800
12 assistant civil engineers (first 5 years).....	1,500	18,000
		105,300
4 chief boatswains (ensigns, after 20 years).....	1,960	7,840
3 chief boatswains (fourth 5 years).....	1,820	5,460
36 chief boatswains (third 5 years).....	1,680	60,480
37 chief boatswains (second 5 years).....	1,540	56,980
2 chief boatswains (second 5 years; beyond seas).....	1,694	3,388
61 boatswains (second 3 years).....	1,300	79,300
39 boatswains (first 3 years).....	1,200	46,800
		280,248
5 chief gunners (ensigns, after 20 years).....	1,960	9,800
7 chief gunners (fourth 5 years).....	1,820	12,740
28 chief gunners (third 5 years).....	1,680	47,040
1 chief gunner (third 5 years; beyond seas).....	1,848	1,848
33 chief gunners (second 5 years).....	1,540	50,820
40 gunners (second 3 years).....	1,300	52,000
54 gunners (first 3 years).....	1,200	64,800
		239,048
11 chief carpenters (ensigns, after 20 years).....	1,960	21,560
1 chief carpenter (fourth 5 years).....	1,820	1,820
24 chief carpenters (third 5 years).....	1,680	40,320
1 chief carpenter (third 5 years; beyond seas).....	1,848	1,848
22 chief carpenters (second 5 years).....	1,540	33,880
34 carpenters (second 3 years).....	1,300	44,200
38 carpenters (first 3 years).....	1,200	45,600
		189,228
6 chief sailmakers (ensigns, after 20 years).....	1,960	11,760

Estimates based on present pay of officers on the active list of the Navy—Continued.

Rank.	Amount.	Total.
70 warrant machinists (fourth 3 years).....	\$1,600	\$112,000
37 warrant machinists (third 3 years).....	1,400	51,800
73 warrant machinists (second 3 years).....	1,300	94,900
70 warrant machinists (first 3 years).....	1,200	84,000
		342,700
16 pharmacists (fourth 3 years).....	1,600	25,600
3 pharmacists (third 3 years).....	1,400	4,200
3 pharmacists (second 3 years).....	1,300	3,900
2 pharmacists (first 3 years).....	1,200	2,400
		36,100
66 mates (since August 1, 1894).....	900	59,400
Total.....		6,789,462

Pay of Navy, active list, by Dick-Capron pay bill.

Rank.	Amount.	Total.
1 admiral.....	\$14,850.00	\$14,850.00
11 rear-admirals, first nine.....	8,825.00	94,875.00
11 rear-admirals, second nine.....	6,325.00	69,575.00
82 captains, after 20 years.....	5,880.00	482,160.00
1 captain, after 20 years (beyond seas).....	6,468.00	6,468.00
122 commanders, after 20 years.....	5,040.00	614,880.00
4 commanders, after 20 years (beyond seas).....	5,544.00	22,176.00
162 lieutenant-commanders, after 20 years.....	4,200.00	680,400.00
3 lieutenant-commanders, after 20 years (beyond seas).....	4,620.00	13,860.00
43 lieutenant-commanders, after 15 years.....	3,900.00	167,700.00
1 lieutenant-commander, after 15 years (beyond seas).....	4,290.00	4,290.00
71 lieutenants, after 15 years.....	2,925.00	207,675.00
234 lieutenants, after 10 years.....	2,700.00	631,800.00
4 lieutenants, after 10 years (beyond seas).....	2,970.00	11,880.00
49 lieutenants, after 5 years.....	2,475.00	121,275.00
1 lieutenant, after 5 years (beyond seas).....	2,722.50	2,722.50
8 lieutenants (junior grade), after 5 years (beyond seas).....	2,062.50	16,500.00
417 ensigns, after 5 years.....	1,925.00	802,725.00
385 midshipmen, at sea.....	1,187.50	457,187.50
		4,422,999.00
MEDICAL CORPS.		
1 medical director (chief of bureau).....	6,325.00	6,325.00
14 medical directors (captains, after 20 years).....	5,880.00	82,320.00
15 medical inspectors (commanders, after 20 years).....	5,040.00	75,600.00
51 surgeons (lieutenant-commanders, after 20 years).....	4,200.00	214,200.00
1 surgeon (lieutenant-commander, assistant to bureau).....	4,200.00	4,200.00
1 surgeon (lieutenant-commander, after 20 years, beyond seas).....	4,620.00	4,620.00
31 surgeons (lieutenant-commanders, after 15 years).....	3,900.00	120,900.00
3 surgeons (lieutenant-commanders, after 10 years, beyond seas).....	3,960.00	11,880.00
124 passed assistant surgeons (lieutenants, mounted, after 10 years).....	3,000.00	372,000.00
5 passed assistant surgeons (lieutenants, mounted, after 10 years, beyond seas).....	3,300.00	16,500.00
98 assistant surgeons (lieutenants, junior grade, mounted, after 5 years).....	2,200.00	215,600.00
3 assistant surgeons (lieutenants, junior grade, mounted, after 5 years, beyond seas).....	2,420.00	7,260.00
25 acting assistant surgeons (after 5 years from date of appointment).....	1,875.00	46,875.00
		1,178,280.00
PAY CORPS.		
1 pay director (chief of bureau).....	6,325.00	6,325.00
13 pay directors (captains, after 20 years).....	5,880.00	76,440.00
15 pay inspectors (commanders, after 20 years).....	5,040.00	75,600.00
10 paymasters (lieutenant-commanders, after 15 years).....	3,900.00	39,000.00
20 paymasters (lieutenants, mounted, after 15 years).....	3,250.00	65,000.00
77 paymasters and passed assistant paymasters (lieutenants, mounted, after 15 years).....	3,000.00	231,000.00
14 assistant paymasters (lieutenants, junior grade, after 5 years).....	2,062.50	28,875.00
47 assistant paymasters (ensigns, after 5 years).....	1,925.00	90,475.00
3 assistant paymasters (ensigns, after 5 years beyond seas).....	2,100.00	6,300.00
		619,015.00

Pay of Navy, active list, by Dick-Capron pay bill—Continued.

Rank.	Amount.	Total.
CHAPLAINS.		
4 chaplains (captains, after 20 years).....	\$5,880.00	\$23,520.00
2 chaplains (commanders, after 20 years).....	5,040.00	10,080.00
4 chaplains (commanders, after 15 years).....	4,680.00	18,720.00
1 chaplain (commander, after 10 years).....	4,320.00	4,320.00
5 chaplains (lieutenant-commanders, after 10 years).....	3,600.00	18,000.00
3 chaplains (lieutenants, after 10 years).....	2,700.00	8,100.00
4 chaplains (lieutenants, after 5 years).....	2,475.00	9,900.00
1 chaplain (lieutenant, junior grade, after 5 years).....	2,062.50	2,062.50
		<u>94,702.50</u>
PROFESSORS OF MATHEMATICS.		
3 professors of mathematics (captains, after 20 years).....	5,880.00	17,640.00
2 professors of mathematics (commanders, after 20 years).....	5,040.00	10,080.00
3 professors of mathematics (commanders, after 15 years).....	4,680.00	14,040.00
1 professor of mathematics (commander, after 10 years).....	4,320.00	4,320.00
3 professors of mathematics (lieutenants, after 10 years; old pay).....	3,000.00	6,000.00
3 professors of mathematics (lieutenants, after 5 years; old pay).....	2,700.00	8,100.00
		<u>60,160.00</u>
1 secretary to Admiral.....	3,375.00	<u>3,375.00</u>
NAVAL CONSTRUCTORS.		
1 naval constructor (chief of bureau).....	6,325.00	6,325.00
4 naval constructors (captains, after 20 years).....	5,880.00	23,520.00
5 naval constructors (commanders, after 20 years).....	5,040.00	25,200.00
7 naval constructors (lieutenant-commanders, after 20 years).....	4,200.00	29,400.00
3 naval constructors (lieutenant-commanders, after 15 years).....	3,900.00	11,700.00
3 naval constructors (lieutenants, after 15 years; old pay).....	3,200.00	9,600.00
2 naval constructors (lieutenants, after 10 years; old pay).....	3,200.00	6,400.00
15 naval constructors (lieutenants, after 10 years).....	2,700.00	40,500.00
14 assistant naval constructors (lieutenants, junior grade, after 10 years; old pay).....	2,600.00	36,480.00
21 assistant naval constructors (lieutenants, junior grade, after 5 years; old pay).....	2,600.00	54,600.00
		<u>243,645.00</u>
CIVIL ENGINEERS.		
1 civil engineer (chief of bureau).....	6,325.00	6,325.00
2 civil engineers (captains, after 20 years).....	5,880.00	11,760.00
1 civil engineer (commander, after 20 years).....	5,040.00	5,040.00
2 civil engineers (lieutenant-commanders, after 15 years).....	3,900.00	7,800.00
9 civil engineers (lieutenants, after 15 years; old pay).....	3,500.00	31,500.00
12 civil engineers (lieutenants, after 10 years; old pay).....	3,000.00	36,000.00
2 civil engineers (lieutenants, after 10 years; beyond seas).....	3,000.00	6,000.00
1 assistant civil engineer (lieutenant, junior grade, after 10 years).....	2,250.00	2,250.00
5 assistant civil engineers (lieutenants, junior grade, after 5 years).....	2,062.50	10,312.50
6 assistant civil engineers (ensigns, after 5 years).....	1,925.00	11,550.00
		<u>128,537.50</u>
CHIEF BOATSWAINS AND BOATSWAINS.		
4 chief boatswains (ensigns, after 20 years).....	2,450.00	9,800.00
3 chief boatswains (ensigns, after 15 years).....	2,275.00	6,825.00
36 chief boatswains (ensigns, after 10 years).....	2,100.00	75,600.00
37 chief boatswains (ensigns, after 5 years).....	1,925.00	71,225.00
2 chief boatswains (after 5 years; beyond seas).....	2,117.50	4,235.00
61 boatswains (second 3 years).....	1,625.00	99,125.00
39 boatswains (first 3 years).....	1,500.00	58,500.00
		<u>325,310.00</u>
CHIEF GUNNERS AND GUNNERS.		
5 chief gunners (ensign, after 20 years).....	2,450.00	12,250.00
7 chief gunners (after 15 years).....	2,275.00	15,925.00
28 chief gunners (after 10 years).....	2,100.00	88,800.00
1 chief gunner (after 10 years).....	2,310.00	2,310.00
33 chief gunners (after 5 years).....	1,925.00	63,525.00
40 gunners (second 3 years).....	1,625.00	65,000.00
54 gunners (first 3 years).....	1,500.00	81,000.00
		<u>298,810.00</u>

Pay of Navy, active list, by Dick-Capron pay bill—Continued.

Rank.	Amount.	Total.
CHIEF CARPENTERS AND CARPENTERS.		
11 chief carpenters (ensigns, after 20 years)	\$2,450.00	\$25,950.00
1 chief carpenter (after 15 years)	2,275.00	2,275.00
24 chief carpenters (after 10 years)	2,100.00	50,400.00
1 chief carpenter (after 10 years, beyond seas)	2,310.00	2,310.00
22 chief carpenters (after 5 years)	1,925.00	42,350.00
34 carpenters (second 3 years)	1,625.00	55,250.00
38 carpenters (first 3 years)	1,500.00	57,000.00
		236,585.00
CHIEF SAILMAKERS.		
6 chief sailmakers (ensigns, after 20 years)	2,450.00	14,700.00
WARRANT MACHINISTS.		
70 warrant machinists (fourth 3 years)	2,000.00	140,000.00
37 warrant machinists (third 3 years)	1,850.00	68,450.00
73 warrant machinists (second 3 years)	1,625.00	118,625.00
70 warrant machinists (first 3 years)	1,500.00	105,000.00
		432,075.00
PHARMACISTS.		
16 pharmacists (fourth 3 years)	2,000.00	32,000.00
3 pharmacists (third 3 years)	1,850.00	5,550.00
3 pharmacists (second 3 years)	1,625.00	4,875.00
2 pharmacists (first 3 years)	1,500.00	3,000.00
		45,425.00
MATES.		
66 mates (appointed since August 1, 1894)	1,125.00	74,250.00
Total pay of the active list		8,177,839.00

Naval retired officers (present pay).

Rank.	Amount.	Total.
64 rear-admirals (pay of major-general)	\$5,625	\$360,000
58 rear-admirals (pay of brigadier-general)	4,125	239,250
9 commodores (old pay)	3,750	33,750
38 captains (after 20 years' service)	3,375	128,250
78 commanders (after 20 years' service)	3,000	234,000
22 lieutenant-commanders	2,625	57,700
35 lieutenants	1,950	68,250
8 lieutenants (junior grade, after 5 years; old pay)	1,500	12,000
17 ensigns	1,280	21,420
1 surgeon-general, retired (pay of major-general)	5,625	5,625
1 surgeon-general, retired (commodore)	3,750	3,750
27 medical directors (pay of brigadier-general)	4,125	111,375
9 medical directors (captains)	3,375	30,375
9 medical inspectors (commanders; old pay)	3,300	29,700
15 surgeons (after 20 years' service)	3,150	47,250
11 passed assistant surgeons	1,800	20,700
9 assistant surgeons	1,425	12,825
3 paymaster-generals, retired (pay of major-general)	5,625	16,875
27 pay directors (pay of brigadier-general)	3,750	101,250
6 pay directors (captains, after 20 years)	3,375	20,250
6 pay inspectors (commanders; old pay)	3,300	19,800
2 paymasters (after 20 years; old pay)	3,150	6,300
2 paymasters (third 5 years; old pay)	2,625	5,250
1 passed assistant paymaster (after 5 years)	1,650	1,650
1 assistant paymaster	1,425	1,425
1 engineer in chief (major-general)	5,625	5,625
20 chief engineers (rear-admiral, brigadier-general)	4,125	82,500
9 chief engineers (captains, 20 years' service)	3,375	30,375
28 chief engineers (after 20 years' service; old pay)	3,300	92,400
22 passed assistant engineers (fourth 5 years; old pay)	2,025	44,550
15 assistant engineers	1,425	21,375
9 chaplains	2,100	18,900
7 professors of mathematics	2,625	18,375
1 chief constructor (major-general)	5,625	5,625
6 naval constructors (after 20 years)	3,150	18,900
2 civil engineers (major-general)	5,625	11,250

Naval retired officers (present pay)—Continued.

Rank.	Amount.	Total.
4 civil engineers (fourth 5 years).....	\$2,625	\$10,500
13 chief boatswains (lieutenants, junior grade).....	1,500	19,500
12 chief boatswains (ensigns).....	1,470	17,640
5 boatswains (after 12 years).....	1,350	6,750
6 boatswains (fourth 3 years).....	1,200	7,200
1 boatswain (second 3 years).....	975	975
5 chief gunners (lieutenants, junior grade).....	1,500	7,500
12 chief gunners (ensigns).....	1,470	17,640
6 gunners (after 12 years).....	1,350	8,100
2 gunners (fourth 3 years).....	1,200	2,400
1 gunner (second 3 years).....	975	975
3 chief carpenters (lieutenants, junior grade).....	1,500	4,500
8 chief carpenters (ensigns).....	1,470	11,760
11 carpenters (after 12 years).....	1,350	14,850
2 chief sailmakers (lieutenants, junior grade).....	1,500	3,000
4 chief sailmakers (ensigns).....	1,470	5,880
6 sailmakers (after 12 years).....	1,350	8,100
10 warrant machinists (fourth 3 years).....	1,200	12,000
5 warrant machinists (third 3 years).....	1,050	5,250
4 pharmacists (fourth 3 years).....	1,200	4,800
1 pharmacist (third 3 years).....	1,050	1,050
16 mates (appointed prior to August 1, 1894).....	900	14,400
Total pay of 716 retired officers.....		2,123,656

[Dick-Capron pay bill.]

Retired officers.

64 rear-admirals (pay of major-general), at \$6,468.75.....	\$414,000.00
58 rear-admirals (pay of brigadier-general), at \$4,743.75.....	275,137.50
9 commodores (old pay), at \$4,743.75.....	42,693.75
38 captains (after 20 years' service), at \$4,410.....	167,580.00
78 commanders (after 20 years' service), 74 at \$3,780, 2 at \$3,510, 2 at \$3,240.....	293,220.00
22 lieutenant-commanders, 20 at \$3,150, 2 at \$2,925.....	68,850.00
35 lieutenants, 24 at \$2,362.50, 5 at \$2,193.75, 6 at \$2,025.....	79,818.75
8 lieutenants (junior grade) after 5 years (old pay), 3 at \$1,968.75, 4 at \$1,828.12, 1 at \$1,687.50.....	14,906.23
17 ensigns, 3 at \$1,706.25, 7 at \$1,575, 7 at \$1,312.50.....	25,331.25
1 surgeon-general, retired (pay of major-general), at \$6,468.75.....	6,468.75
1 surgeon-general, retired (commodore), at \$4,743.75.....	4,743.75
27 medical directors (pay of brigadier-general), at \$4,743.75.....	128,081.25
9 medical directors (captains), at \$4,410.....	39,690.00
9 medical inspectors (commanders; old pay), at \$3,780.....	34,020.00
15 surgeons (after 20 years' service), 8 at \$3,240, 1 at \$2,925, 6 at \$2,625.....	44,595.00
11 passed assistant surgeons, 2 at \$2,437.50, 3 at \$2,250, 6 at \$2,062.50.....	24,000.00
9 assistant surgeons, 4 at \$1,800, 5 at \$1,650.....	15,450.00
3 paymaster-generals, retired (pay of major-general), at \$6,468.75.....	19,406.25
27 pay directors (pay of brigadier-general), at \$4,743.75.....	128,081.25
6 pay directors (captains, after 20 years), at \$4,410.....	26,460.00
6 pay inspectors (commanders, old pay) at \$3,780.....	22,680.00
2 paymasters (after 20 years, old pay) 1 at \$3,150, 1 at \$2,700.....	5,850.00
2 paymasters (third 5 years, old pay) 1 at \$2,437.50, 1 at \$2,250.....	4,687.50
1 passed assistant paymaster (after 5 years) at \$2,062.50.....	2,062.50
1 assistant paymaster at \$1,650.....	1,650.00
1 engineer in chief (major-general) at \$6,468.75.....	6,468.75
20 chief engineers (rear-admiral, brigadier-general) at \$4,743.75.....	94,875.00
9 chief engineers (captains, 20 years' service) at \$4,410.....	39,690.00
28 chief engineers (after 20 years' service, old pay) 9 at \$3,780, 1 at \$3,150, 18 at \$2,362.50.....	79,695.00
22 passed assistant engineers (fourth 5 years, old pay) 6 at \$2,193.75, 3 at \$2,025, 5 at \$1,828.12, 8 at \$1,687.50.....	41,878.10
15 assistant engineers, 7 at \$1,546.88, 3 at \$1,406.25, 1 at \$1,575, 3 at \$1,443.75, 1 at \$1,312.50.....	22,265.63
9 chaplains, 5 at \$4,743.75, 4 at \$4,410.....	41,358.75
9 professors of mathematics, 5 at \$4,743.75, 1 at \$4,410, 1 at \$3,780.....	31,908.75

1 chief constructor (major-general) at \$6,468.75	\$6,468.75
6 naval constructors (after 20 years) 2 at \$4,743.75, 2 at \$4,410, 2 at \$3,780.....	25,867.50
2 civil engineers (major-general) at \$6,468.75	12,937.50
4 civil engineers (fourth 5 years) 2 at \$3,510, 1 at \$2,193.50, 1 at \$2,025 ..	11,238.50
13 chief boatswains (lieutenants, junior grade) at \$1,968.75	25,593.75
12 chief boatswains (ensigns) at \$1,837.50	22,050.00
5 boatswains (after 12 years) at \$1,687.50	8,437.50
6 boatswains (fourth 3 years) at \$1,500.....	9,000.00
1 boatswain (second 3 years), at \$1,218.75	1,218.75
5 chief gunners (lieutenants, junior grade), at \$1,968.75.....	9,843.75
12 chief gunners (ensigns), 10 at \$1,837.50, 2 at \$1,575	21,525.00
6 gunners (after 12 years), at \$1,687.50.....	10,125.00
2 gunners (fourth 3 years), at \$1,500.....	3,000.00
1 gunner (second 3 years), at \$1,387.50.....	1,387.50
3 chief carpenters (lieutenants, junior grade), at \$1,968.75.....	5,906.25
8 chief carpenters (ensigns), 7 at \$1,837.50, 1 at \$1,706.25.....	14,568.75
11 carpenters (after 12 years), at \$1,687.50.....	18,562.50
2 chief sailmakers (lieutenants, junior grade), at \$1,968.75.....	3,937.50
4 chief sailmakers (ensigns), 3 at \$1,837.50, 1 at \$1,706.25.....	7,218.75
6 sailmakers (after 12 years), at \$1,687.50	10,125.00
10 warrant machinists (fourth 3 years), at \$1,500.....	15,000.00
5 warrant machinists (third 3 years), at \$1,387.50.....	6,937.50
4 pharmacists (fourth 3 years), at \$1,500.....	6,000.00
1 pharmacist (third 3 years), at \$1,387.50.....	1,387.50
16 mates (appointed prior to August 1, 1894), at \$900 (present pay)....	14,400.00

Total pay of retired officers..... 2,520,340.99

Total pay of 716 retired officers—.

[The Dick-Capron pay bill.]

Increasing the pay of the Army, Navy, Marine Corps, and Revenue-Cutter Service.

The following estimates, prepared by the several Departments, show the increases made necessary to carry out the bill, should it be passed by Congress:

Army:	
Pay of officers, active list.....	\$2,366,027.00
Pay of officers, retired list	603,879.37
	<hr/>
	\$2,969,906.37
Navy:	
Pay of officers, active list.....	1,610,324.00
Pay of officers, retired list.....	430,668.00
	<hr/>
	2,040,992.00
Marine Corps:	
Pay of officers, active list.....	150,807.25
Pay of officers, retired list.....	24,410.00
	<hr/>
	175,217.25
Revenue-Cutter Service:	
Pay of officers, active list.....	114,990.00
Pay of officers, retired list.....	30,303.75
	<hr/>
	145,293.75
<hr/>	
Total increase for officers, active and retired, of all services.....	5,331,409.37

FOR ENLISTED MEN.

Army:	
Enlisted men on the active list.....	\$4,129,591.60
Enlisted men on the retired list.....	358,033.50
	<hr/>
	4,487,625.10
Navy:	
Enlisted men on the active list.....	1,592,400.00
Enlisted men on the retired list.....	11,635.00
	<hr/>
	1,604,035.00

Marine Corps:		
Enlisted men on the active list.....	\$437, 696. 25	
Enlisted men on the retired list.....	18, 006. 00	
		<u>\$455, 702. 25</u>
Revenue-Cutter Service:		
Enlisted men, active and retired.....		<u>109, 464. 00</u>
Total increase for enlisted men, active and retired, of all services.....		<u>6, 656, 826. 35</u>
Grand total.....		<u><u>11, 988, 235. 72</u></u>
The amounts appropriated for the current fiscal year are for the—		
War Department.....	176, 116, 606. 57	
Navy Department.....	100, 511, 051. 55	
Revenue-Cutter Service.....	2, 625, 087. 00	
Or a total of.....	279, 252, 745. 12	

from which it will be seen that the total increase asked for \$11,988,235.72, is a percentage increase on the total amounts appropriated last year of but 4.32, small indeed when the efficiency of the service is taken into consideration, while for the naval establishment it is only about 3.64 per cent.

List of naval officers on the active list with corresponding rank in Army.

[Taken from Naval Register, July 1, 1907.]

Generals—	
Admiral.....	1
Major-generals—	
Rear-admirals.....	9
Brigadier-generals—	
Line officers.....	16
Construction Corps.....	1
Medical Corps.....	1
Civil Engineer Corps.....	1
Pay Corps.....	1
	<u>20</u>
Colonels—	
Line officers.....	80
Medical.....	14
Pay.....	13
Chaplains.....	4
Professors.....	3
Constructors.....	4
Civil engineers.....	2
	<u>120</u>
Lieutenant-colonels—	
Line officers.....	126
Medical.....	15
Pay.....	15
Chaplains.....	7
Professors.....	4
Constructors.....	5
Civil engineer.....	1
	<u>173</u>
Majors—	
Line officers.....	209
Medical.....	187
Pay.....	7
Chaplains.....	5
Constructors.....	7
Civil engineers.....	2
	<u>317</u>

Captains—	
Line officers.....	325
Medical.....	87
Pay.....	99
Chaplains.....	7
Professors.....	7
Constructors.....	20
Civil engineers.....	23
	<hr/>
	568
First lieutenants—	
Medical officers.....	61
Pay.....	14
Chaplain.....	1
Constructors.....	21
Civil engineers.....	6
	<hr/>
	103
Second lieutenants—	
Line.....	217
Pay.....	51
Civil engineer.....	1
Chief boatswains.....	66
Chief gunners.....	59
Chief carpenters.....	54
Chief sailmakers.....	6
	<hr/>
	454
Recapitulation:	
General.....	1
Major-generals.....	9
Brigadier-generals.....	20
Colonels.....	120
Lieutenant-colonels.....	173
Majors.....	317
Captains.....	568
First lieutenants.....	103
Second lieutenants.....	454
	<hr/>
	1,755

List of naval officers on the retired list showing their corresponding rank in the Army.

Major-generals—		Colonels—Continued.	
Rear-admirals.....	64	Pay directors.....	6
Surgeon-general.....	1	Chief engineers.....	9
Paymaster-generals.....	3	Chaplains.....	9
Chief constructor.....	1	Professors.....	7
Engineer in chief.....	1		<hr/>
Civil engineers.....	2		78
	<hr/>	Lieutenant-colonels—	
	72	Commanders.....	78
Brigadier-generals—		Medical inspectors.....	9
Rear-admirals.....	58	Pay inspectors.....	6
Commodores.....	9		<hr/>
Surgeon-general.....	1		93
Medical directors.....	27	Majors—	
Pay directors.....	27	Lieutenant-commanders.....	22
Chief engineers.....	20	Surgeons.....	15
	<hr/>	Paymasters.....	2
	142	Chief engineers.....	28
Colonels—		Naval constructors.....	6
Captains.....	38	Civil engineers.....	4
Medical directors.....	9		<hr/>
			77

Table showing changes made in salaries of Government officers since the present army pay was established in 1870.

	From—	To—		From—	To—
Assistant Secretary of State	\$3,500	\$4,500	Public Printer	3,600	\$5,500
Assistant Secretary of the Treasury	3,500	4,500	Commissioner of Labor	3,000	5,000
Chief clerk, Treasury Department	2,200	3,000	Director of Census	6,000	7,500
Auditors, Treasury Department	3,000	4,000	Secretary of the Senate	4,320	5,396
Assistant Secretary Interior	3,500	6,000	Sergeant-at-Arms, Senate	4,320	5,000
Commissioner of Pensions	3,600	5,000	Clerk, House of Representatives	4,220	5,000
Commissioner, General Land Office	3,000	5,000	Doorkeeper, House of Representatives	2,592	4,500
Commissioner, Indian Affairs	3,000	5,000	Sergeant-at-Arms, House of Representatives	4,320	5,000
Chief clerk, Navy Department	2,200	3,000	Postmaster, House of Representatives	2,592	3,000
Assistant Postmaster-General	3,500	4,500			

There have been many other increases, all of which have been considered by Congress and the country as proper and necessary for the proper administration of the offices and to enable the occupants to perform their duties in a proper manner, without the devotion of time as to the manner in which they will meet their financial obligations at the end of each month.

The pay of "passed" midshipmen.

It may be proper to admit in the start that there is no such grade or rank as "passed" midshipman, but there should be, and unofficially there is. For two years after graduation a midshipman is not a midshipman as that title was originally intended and as it is now understood. A midshipman is a student at the United States Naval Academy just as a cadet is a student at the United States Military Academy. When the cadet is graduated he is assigned to the duty of a second lieutenant and is immediately commissioned a second lieutenant with pay of \$1,400 and \$1,500 and allowances. The midshipman when graduated is assigned to the duty of an ensign (corresponding grade of second lieutenant), but remains in grade with students at the Naval Academy and receives not \$1,400 or \$1,500, as his army cousin receives, but a paltry \$950 per annum for two years. His status is worse than while at the Naval Academy, for during these two years he has no rights under the pension laws. His status is so peculiar and unique that for the very purpose of clear designation he has been and is unofficially graded as a "passed" midshipman. Why isn't he commissioned an ensign? The ships need ensigns and have no official scope of duty for midshipmen. The regulations have no work for a midshipman, no more than an army regiment has a place for a "cadet"—passed or otherwise.

But it is not his *title* that makes this "oversight" a most serious matter. It is not the impolitic partiality which the Government bestows upon the army boy that makes this "oversight" a most pitiful thing. It is the fact that at \$950 for two years the midshipmen have no possible escape from a burden of immovable, increasing debt that would send the clerk or mechanic to destruction. The midshipman knows at graduation that he is to plunge head over heels into a very vortex of debt that will try his very soul. He is sent to occupy the place of an ensign, to perform the duty, official and social, of an ensign of the United States Navy, and he knows in advance that \$950 per year will not reach two-thirds of his obligations. A young man in civil life goes beyond his depths—does so voluntarily. The graduated midshipman has no choice. It speaks well for the training of the Naval Academy and its high standard of honor that all these graduated midshipmen do not give up in despair and bring disgrace upon their names and service.

A very careful and economical lieutenant having no bad habits and living as modestly as his position and the regulations would permit has just succeeded after eight years and four months of worry and strife in paying off his indebtedness and for the first time since graduation has a dollar he can call his *own*. Isn't it a shame? God help the boy who does not know how to economize and who can not learn. If inclined to recklessness, it looks as if the path to hell was greased for him. Isn't it a fact that the Secretary of the Navy virtually says to these graduates:

"I give you this diploma and hereby install you into the naval service of your country, in which service we will require you for two years to expend \$1,500 per year, for which the Government will pay you \$950 per year?"

In the first place, 75 per cent of boys who enter the Naval Academy have obligated themselves to pay some one the expense incidental to entrance. Perhaps in many cases it is "Father," and Father has said, "Never mind, my boy, perhaps I won't need it. Don't let that worry you." But in many cases the money has been borrowed from friends of the family and notes given which must be met sometime. It is surely a part of the financial statement in any event. Some midshipmen forfeit the pleasures of their annual thirty-day leave and take the railroad fare and pay interest on notes at home and live obscurely near Annapolis until the thirty days expire. When a boy is appointed he is advised by all who know to take special instructions so that he can pass the examination. He is solicited by mail by several teachers who make West Point and Annapolis preparation a specialty. It is probably necessary to go to one of these teachers for three months at least, so it will cost about as follows:

Railway fare to preparatory school, average.....	\$16.00
3 months' tuition.....	90.00
3 months' room rent.....	36.00
3 months' board.....	72.00
Incidentals.....	30.00
	<u>\$244.00</u>
The Navy Regulations require each midshipman on date of entrance to deposit in cash.....	269.00
Total at entrance.....	<u>513.00</u>
At graduation very few have to their credit in their equipment fund more than.....	250.00
In debt to some one at graduation	<u>263.00</u>

The Regulations require complete uniforms, etc., at graduation and the only garments he can convert and use are overcoat, blouse, and trousers. All his expensive academy outfit is lost to him. The following is a list of what "uniforms" will cost the graduated midshipman:

Full-dress uniform.....	\$64.00
Frock coat.....	37.00
Cloth blouse (new).....	30.00
Undress trousers.....	13.00
Serge blouse.....	25.00
Serge trousers.....	10.00
6 white linen blouses.....	54.00
6 white linen trousers.....	30.00
1 boat cloak.....	32.00
2 mess jackets.....	18.00
2 white vests.....	10.00
1 oilskin coat and hat.....	9.00
1 dress cap, blue.....	7.00
1 cap, blue.....	5.00
1 white cap.....	6.25
2 pair marks.....	4.00
1 gilt knot.....	5.50
1 gilt sword knot.....	1.75
1 sword.....	16.50
1 belt.....	4.00
1 dress belt.....	14.00
1 macintosh.....	14.00
1 white helmet.....	4.00
1 pair patent leather shoes.....	4.00
6 white shirts for uniforms.....	12.00
1 pair white kid gloves.....	1.50
Converting academy overcoat.....	5.00
Converting academy blouse.....	5.00
Total.....	<u>441.50</u>

Graduates have very little of any kind of civilian clothing and what they have is of too ancient a brand to be worn by an "officer of the United States Navy," who while on graduation leave must have a civilian outfit. As a graduate he will and should be invited to various functions—day and evening.

He will be expected *even* to go to church in proper clothes, because he is an officer in the Navy, so he must have the following by the day he graduates. The uniform can not be worn at the affairs he will be invited to, so he orders an outfit of civilian's clothing, costing about \$303.50. He might hide some place *incognito* during his *enforced* leave and save some of the largest of these items, but as soon as he joins ship, he will be invited ashore by good families to whose homes he can not go in uniform. So at best this expense could only be deferred a few days at most.

Now, let us make a first consolidation of items, with which he finds himself burdened the day he leaves the academy. His mileage allowance will be needed to pay his expenses to his home, and if it should be liberal he will need money to pay his expense at his home and among his home friends.

Condition at graduation:	
Amount owing on entrance net of equipment fund.....	\$263. 00
Amount owing for uniforms.....	441. 50
Amount owing for civilian outfit.....	303. 30
In debt at graduation.....	1, 007. 80
Soon he receives orders to join ship, but before leaving home (if he is prudent and thoughtful) he will have taken sufficient endowment insurance to protect his creditors in case of death and perhaps a few dollars to some loved one at home who in many cases need it badly if he be "taken away." When he reaches ship he learns that his fixed expenses for twenty-four months will be for mess bills, laundry, bedding, assessments for entertaining, uniform renewals, life insurance, and necessary incidentals, about.....	
	2, 188. 00
Total for two years.....	3, 195. 80
By two years' pay.....	1, 900. 00
In debt at end of two years.....	1, 295. 80

Pitiful, isn't it? Pay up? Pay with what? Impossible. It is great wonder there are not more "duplications of pay vouchers" and consequent desertions. No other officer in any service is in anything like such a hopeless dilemma. A very limited number of Congressmen are aware of this injustice. If it was generally known among them, they would right the wrong in fifteen minutes. Here is the way this question should come home to every Senator and Representative: You have two boys to select to represent you and your judgment and your district for forty years to come—one boy in the Army and one boy in the Navy. These places are eagerly sought after by boys of the same sterling qualities. The general impression is that one place is as good as another. The boys themselves decide which service they prefer. Both are equally capable, equally deserving, and equally grateful. And yet in four years you find you have placed one in a condition which makes it possible for him to devote his best efforts to his profession, while the other must devote his best efforts to his creditors. Is the investment good? A young man overwhelmed with \$1,300 of debts can not study his profession; he is kept busy dodging the men he owes.

In November, 1851, a four-year course for midshipmen was adopted identical in years with the course at West Point and our Navy in the civil war demonstrated that a four-years' course lays sufficient foundation for good naval officers. In the winter of 1873 it was found that too many midshipmen were being graduated. Many graduates for want of vacancies were given a diploma and one year's pay and returned to civil life. Many suggestions were then offered with a view of reducing the number without taking representation from any Congressional district. On March 3 of that year the law was changed making the course six years. This reduced the number of graduates 33½ per cent. It was not then claimed that six years preparation was necessary, but the plan was adopted solely to reduce the number of graduates. The fact then and now is that the midshipman is as well prepared in four years for service as an officer of the Navy as the West Pointer is after four years' work, for service as an officer in the Army. Both unquestionably have much to learn, but they are ready for ensign or second lieutenant duty. Both are obliged to do post-graduate work—the midshipman as an acting ensign on board ship at \$950 per annum, the West Pointer at Fortress Monroe, Fort Leavenworth, Fort Riley, or with his regiment at \$1,400 and \$1,500 per year. The West Pointer does not get through his first two years without debt. The midshipman on \$950 in two years is in debt a little more than the difference between his pay and the pay of the West Pointer.

Undoubtedly this condition is not generally known by Congressmen or it would be corrected almost instantly and it is now believed it will be promptly corrected. It is wrong—it is dangerous to the midshipman manhood. It would be kinder far to

send him below decks as a common sailor for two years, in which environment he could economize and make both ends meet at \$950 per annum. But to assign him to ensign duty—to the expense, condition, and customs of an officer in the United States Navy, which entails expense of \$1,500 per annum and pay him \$950 is asking him to do the impossible.

If young officers of the Army can not live on their present pay, and we know they do not, and that an increase is absolutely necessary, think of what a midshipman is handed out with his diploma.

Several midshipmen at the Naval Academy have just resigned to accept appointments at West Point six months hence. Is it surprising in the least?

Give the passed midshipman a chance to pay his bills which are really not of his making. Make it possible for the passed midshipman to avoid repudiating just debts. Make it possible for them to learn the important lesson of "pay as you go." Don't tie millstones around their necks by longer inflicting a so-called six-year course upon them while the Army boy has but four. The passed midshipman needs this now—needs it badly and the good of the service demands that it be made possible for him to devote his best thought and efforts to his profession and not to his creditors.

This statement is to give the committee real facts; there is nothing concealed, and to any who may think \$30 per month too much for incidentals, I say, do not lose sight of the fact that when a ship enters port it is the duty of both officers and men to seek information and add to the education the country desires and expects them to have.

To this end they should go sight-seeing in every port they enter and visit every place of interest near such port, this they can not do, much as they may desire it and simply because they have not the means.

It must not be forgotten that these young men are not in civil life, consequently items which may seem extravagant are really part of their outfit.

They must have all articles of civilian's dress as well as uniforms, as they are required to attend functions in both, and I venture to say there is no member of this committee but what desires that our officers and midshipmen shall always appear to advantage no matter whether on board ship or on shore in any part of the world where they may be invited as representatives of the United States Navy.

The Dick-Capron pay bill unites the line and staff of the Navy by placing all officers of the same rank and length of service on precisely the same pay and allowances.

Pay Inspector T. J. Cowie of the Navy states that the great merits of the pay bill are in the fact that it unites the line and staff of the Navy by placing all officers of whatever corps or service on precisely the same footing, according to rank and length of service, as regards pay and allowances, and is the first bill ever brought forward on which all have united.

Both Admiral Brownson and Surgeon-General Rixey are heartily in favor of this measure, which they regard as for the good of the Service as a whole. Personally they are not interested in the matter, but I am confident that although Admiral Brownson is now on the retired list and himself independently wealthy, he will always have the interest of the Service at heart and may be depended on to do all he consistently can to bring about the passage of this bill. As a matter of fact, I know that he has already, in his own quiet way, brought attention of influential Senators and Members to the merits of the measure, and his assurance that it is for the good of the Service and should in his opinion become a law has caused a careful examination of the bill with most favorable results.

The bill itself is so simple and just that only the most favorable comment is heard from those who examine it. In brief, it simply places all officers of the same rank and length of service on the same pay, which is the Army pay established in 1870, with a most modest percentage increase for officers. The pay of all enlisted men will be fixed by the President, as is now the case for enlisted men of the Navy, but the total amount for enlisted men is, of course, fixed by Congress and can not be exceeded in any one fiscal year; so that the rates for the different ranks will be a matter of detail with which the War Department will have to deal.

The press all over the country favors the bill, and I feel very confident that Congress realizes the real necessity for an increase and will be glad of the opportunity to pass favorably on a measure on which the united services have agreed and which all must acknowledge is most urgent and in the best interest not alone of the services, but of the Government, for an officer's time and thoughts should be devoted to his profession and not his creditors.

Editorial from the Chicago Tribune, January 14, 1907—The Dick-Capron measure.

Although Congress with rare self-denial has refused to increase the pay of Representatives and Senators, there can be no reason why it should withhold an increase in the pay of enlisted men and of officers in the Army. The pay of enlisted men has not been changed since 1870, although the price of all things which money will buy has been increased. There is a connection between this fact and the proportion of desertions last year, the highest known. To get better material into the Army and to keep experienced men in the service, higher pay is absolutely necessary.

It is even more necessary to raise the pay of officers if the service of the nation in military command is not to be abandoned to the rich as one of their peculiar perquisites. It will be an unfortunate day for the country when it becomes impossible for young men of little money but of military capabilities and ambitions to contemplate an officer's career. Since 1870 the prices of supplies of all kinds have increased from 20 to 100 per cent, and the officer is more affected by this than the private, because the latter is fed, lodged, and clothed by the Government, so that the increase affects only his pleasures, his family, or his provision for old age.

In 1870, when the present scale of prices was fixed, a large part of an officer's service was in forts on the frontier or in other places where the expense of living was little and social requirements few. Now most officers live in places where they must, for the honor of the Service, imitate the manner of living of people with much larger incomes than themselves. Since the Spanish war, transfers are more numerous than in the preceding quarter of a century and the distances covered by a transfer greater. The new rate bill cuts off the families of officers from the privilege of half fare on the railroads. And all the while the Commander-in-Chief of the Army is preaching the obligation of self-respecting men to marry and raise large families!

A large part of the inefficiency of the British army in the Boer war was rightly ascribed to the fact that the officers of that army formed a class of idle young men of wealth who did not take their profession of arms seriously enough. A similar blight will fall upon the American Army unless it is made possible for an officer to live on his pay without private means, and at the same time to form home ties. The prospect of a scant pension in old age is not enough. The officer and the soldier must be paid adequately now. Otherwise they will continue to leave the Army in time of peace, and the Army will be weaker without them when war comes.

[No. 51.]

NAVY DEPARTMENT,
Washington, February 1, 1908.

**FOR THE WARRANTING AND RETIREMENT OF PAY CLERKS IN
THE NAVY.**

SIR: The receipt is acknowledged of your letter of the 20th ultimo, inclosing, with request for the views and recommendations of this Department thereon, bills (H. R.) Nos. 12684 and 12906, relating to the warranting and retirement of pay clerks in the Navy.

In reply I have the honor to state that the Department would regard with favor the enactment of legislation along the lines of H. R. 12684, "to provide for the temporary warranting and for the retirement of pay clerks in the Navy." The Bureau of Supplies and Accounts, to whom your letter was referred, makes the following recommendation:

The Bureau is heartily in favor of any measure which will give proper recognition to this very useful and deserving class of officers. They are now the only people in the naval service who are denied the privilege of retirement, although they are held to be officers of the Navy by numerous decisions—not only of the Department and of the accounting officers, but of the Court of Claims, circuit courts, and the Supreme Court of the United States. They are in all respects amenable to naval discipline and trial by court-martial in the same manner as are other persons in the naval service. They are exposed to all of the discomforts and dangers incident to life on naval ships; and the Bureau earnestly hopes that they will be given by law a definite status and the benefits of retired pay.

The Bureau of Navigation states, with respect to H. R. 12684, that "its features are not objectionable except that without a proviso it permits paymaster's clerks to receive the full benefits of its provisions without having served on board a ship of the Navy."

I have the honor, therefore, to recommend that this bill (H. R. 12684) be given favorable consideration, provided it be amended so as to require that, of the thirty years' accumulated service necessary for retirement (see page 1, lines 10 and 11, and page 2, line 11), at least twelve years' service shall have been performed while attached to and serving on board a cruising naval vessel.

As will be seen by a letter addressed to you on January 3, 1905 (copy herewith), a measure similar to H. R. 12684 has heretofore received the approval of the Department.

With respect to the bill (H. R. 12906) "to provide for the warranting and retirement of pay clerks in the Navy," the Bureau of Supplies and Accounts makes the following report:

H. R. 12906 is more liberal in its provisions, in that it provides for pay clerks being promoted to the grade of chief pay clerk after fifteen years' service and commissioned in that grade, with the rank, pay, and allowances of chief boatswains, chief gunners, chief carpenters, and chief sailmakers. The intention of this feature of the bill is not quite clear to the Bureau. It would seem, however, to indicate that chief pay clerks were to be permanently commissioned and assigned to duty with pay officers by the Department, thus depriving pay officers of the power to nominate their clerical assistants. In view of the rigid pecuniary responsibility to which pay officers are held, this feature of the bill might possibly be objected to by pay officers.

Without entering upon a detailed consideration of this latter bill, it would seem sufficient to say that there appears to be a conflict between several of its provisions, while it is so drawn as to possibly entail much difficulty and embarrassment in its administration. The bill in question (H. R. 12906) is, therefore, disapproved by the Department.

Very respectfully,

V. H. METCALF, *Secretary.*

HON. GEORGE EDMUND FOSS,
Chairman Committee on Naval Affairs,
House of Representatives.

NAVY DEPARTMENT,
Washington, January 3, 1905.

SIR: I have the honor to transmit herewith for consideration by the committee the draft of a bill providing for the temporary warranting and for the retirement of paymaster's clerks. Paymaster's clerks have been held by the Supreme Court to be officers of the Navy (*Ex Parte Reed*, 100 U. S., 13; *U. S. v. Hendee*, 124 U. S., 309); they are subject to trial by court-martial; much of their duty is performed at sea; and they have their full share of the hardships incident to naval service.

Under the present practice these officers are appointed upon the nomination of a pay officer, and such appointments continue in force during one tour of duty of that pay officer only. Paymaster's clerks with good records are, however, usually reappointed from time to time by different pay officers as their services are required.

Believing that the interests of the service will be promoted by warranting this class of officers and providing for their retirement, the Department approves the measure.

Very respectfully,

PAUL MORTON, *Secretary.*

HON. GEORGE EDMUND FOSS,
Chairman Committee on Naval Affairs,
House of Representatives.

[No. 52.]

NAVY DEPARTMENT,
Washington, February 21, 1908.

**FOR THE RELIEF OF MATE WILLIAM JENNEY—DEPARTMENT
LETTER.**

SIR: I have the honor to acknowledge receipt of your letter of the 14th instant, requesting the Department's views with reference to a bill (H. R. 17059) "For the relief of Mate William Jenney, U. S. Navy, retired, and the eight other retired mates who have been placed on the retired list with the rank and pay of one grade above that actually held by them at the time of retirement."

Inasmuch as the Comptroller of the Treasury has held that the mates in question are entitled only to the lowest pay of warrant officers and not to the pay of warrant officers with the same length of service, the effect of the advancement provided for by the acts of March 3, 1899, and June 29, 1906, will be to give these officers no greater pay than that they previously received.

Favorable consideration of the bill (H. R. 17059) is therefore recommended, for the purpose of extending to these mates the benefits of increased compensation on advance in rank, as was obviously intended by the acts of March 3, 1899, and June 29, 1906.

Very respectfully,

V. H. METCALF, *Secretary.*

HON. GEORGE EDMUND FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives*

[No. 53.]

NAVY DEPARTMENT,
Washington, February 18, 1908.

**FOR THE RELIEF OF ARCHIBALD G. STIRLING—DEPARTMENT
LETTER.**

SIR: In reply to your inquiry of February 13, 1908, with reference to House Joint Resolution No. 134, "For the relief of Archibald G. Stirling, recently midshipman, United States Navy," I have the honor to state that Mr. Stirling's resignation was due to the fact that, when he was examined for advancement to the grade of ensign, his vision was found to be but 12.05, which was 2.05 below the standard required by the Department.

During his two years' service afloat Mr. Stirling proved himself to be an excellent officer, and the Department believes it would be an advantage to the Navy to have him in the service.

It is recommended that the attached resolution be changed so as to provide that Mr. Stirling be reinstated in the Navy to the position he would be entitled to by his order of merit, as shown by his examination for final graduation, and that, as so amended, it be favorably considered.

Very respectfully,

V. H. METCALF, *Secretary.*

HON. GEORGE EDMUND FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives.*

(721)

[No. 54.]

**NAVY DEPARTMENT,
Washington, February 12, 1908.**

PAY OF MATES IN THE NAVY—DEPARTMENT LETTER.

SIR: The receipt is acknowledged of a bill (H. R. 4892) "relating to the pay of mates in the Navy" and, in general, it meets with the approval of this Department. It is recommended, however, that the rates of pay therein prescribed be modified so that the pay of mates shall be as follows:

At sea	\$1,200
On shore duty	1,080
On leave or awaiting orders	960

The Department need hardly say that the status of mates in the Navy is in the highest degree anomalous. They have been considered as petty officers, appointed from the enlisted force, and regarded as enlisted men. This view has been reenforced by an opinion of the Attorney-General, dated July 22, 1907, in which it is held that a man who was enlisted for service in the Navy for a period of four years and was appointed as mate and continued to serve as such after the expiration of his term of enlistment without receiving any discharge, may have his appointment as mate revoked and be permitted to re-enlist, with the benefit of continuous service.

This condition has, however, been complicated by a later opinion, given October 15, 1907, in which the Attorney-General holds that certain mates whose names are borne on the retired list of the officers of the Navy, having been placed there in accordance with the statute approved August 1, 1894 (28 Stat. L., 212), are entitled to advancement in accordance with the provisions of the act of June 29, 1906 (34 Stat. L., 554), to the lowest grade of warrant officers. Hence, for the purposes of retirement, certain mates are considered as officers. In the language of the Attorney-General:

There is no doubt, I think, in view of the provisions of sections 1409 and 1410 of the United States Revised Statutes, that a person can be, at the same time, an officer of the Navy and an enlisted man.

As a further example of the singular conditions applying to mates, the Comptroller of the Treasury in a decision of January 29, 1908, relative to the pay of Mate William Jenney, U. S. Navy, retired, decided that the pay of Mr. Jenney should be that of the lowest grade of warrant officers, i. e., of the lowest pay grade. The effect of this decision is that although the act of June 29, 1906, is a beneficial statute and should be liberally construed, yet under the Comptroller's decision Mate Jenney receives absolutely no benefit whatever, his pay remaining the same as before.

Also, it may be stated that although mates are considered as enlisted men for the purposes of discharge and reenlistment, yet they are debarred from the benefits of the additional pay allowed other enlisted men for succeeding reenlistments. They are usually appointed from chief petty officers having long and creditable records who may receive a maximum pay of approximately \$90 a month but upon appointment as mate their pay drops immediately to \$75 a month, notwithstanding the greater responsibilities of the position.

In order to remedy the inconsistencies in the matter of retirement it is suggested that a provision be incorporated in the bill that mates who were in the service on August 1, 1894, and intended to be benefited by that act and who have been retired under its provisions shall, after the passage of this bill, receive the same pay as now received by retired warrant officers of like length of service at the date of retirement; and that all mates in the service be classed as warrant officers.

Very respectfully,

TRUMAN H. NEWBERRY,
Acting Secretary.

The CHAIRMAN COMMITTEE ON NAVAL AFFAIRS,
House of Representatives.

[No. 55.]

NAVY DEPARTMENT,
Washington, January 11, 1908.

**ADMITTING ALIENS TO BECOME CITIZENS OF THE UNITED STATES
WHO HAVE SERVED FIVE CONSECUTIVE YEARS IN THE UNITED
STATES NAVY OR ONE ENLISTMENT IN UNITED STATES MA-
RINE CORPS—DEPARTMENT LETTER.**

SIR: The "act making appropriations for the naval service for the fiscal year ending June 30, 1895," approved July 26, 1894 (28 Stat., p. 124), contains the following provision:

Any alien of the age of 21 years and upward who has enlisted or may enlist in the United States Navy or Marine Corps, and has served or may hereafter serve five consecutive years in the United States Navy or one enlistment in the United States Marine Corps, and has been or may hereafter be honorably discharged, shall be admitted to become a citizen of the United States upon his petition, without any previous declaration of his intention to become such; and the court admitting such alien shall, in addition to proof of good moral character, be satisfied by competent proof of such person's service in and honorable discharge from the United States Navy or Marine Corps.

Prior to this enactment aliens who had rendered long and faithful service in the United States Navy and were desirous of becoming citizens of this country, were unable to do so without leaving the service and residing on shore, for a time at least, thus losing the benefits of continuous service, as well as depriving the Navy during such interval of the advantage of their experience and training. The above provision was enacted on the recommendation of this Department, for the obvious purpose of remedying these conditions by permitting aliens who had served the prescribed period in the Navy or Marine Corps to become citizens without interruption of their service.

The act "to establish a bureau of immigration and naturalization, and to provide for a uniform rule for the naturalization of aliens throughout the United States," approved June 29, 1906 (34 Stat., p. 596), provides that "an alien may be admitted to become a citizen of the United States in the following manner and not otherwise," but makes no provision for the naturalization of persons in the Army, Navy, or Marine Corps. This act, however, does not expressly repeal the laws relating to the naturalization of these special classes. On the contrary, it is noted that section 26 of the act, while specifically repealing sections 2165, 2167, 2168, 2173 of the Revised Statutes, and section 39 of chapter 1012 of the Statutes at Large of the United States of America for the year 1903, significantly omits section 2166, Revised Statutes, and the act of July 26, 1894, which provide for the naturalization of persons in these branches of the public service.

From a careful consideration of the act of June 29, 1906 (above cited), it is not believed that Congress intended thereby to alter the laws relating to the naturalization of persons in the naval service, who are unable, from the very nature of their duties, to acquire a residence on shore without temporarily abandoning the occupation they have selected, and, in consequence, forfeiting the standing and financial advantages of continuous service. However, the Department is in receipt of numerous appeals from men in the Navy who are desirous of becoming citizens of the United States, but who state that they have been denied naturalization on the ground that they failed to establish a period of residence on shore as required by the act of June 29, 1906. The hardship resulting from this state of affairs is increased by existing laws and regulations giving additional pay to trained men in the Navy, but providing that "only enlisted men who are citizens of the United States" shall receive such additional compensation.

In view of the foregoing, and upon consideration of public policy, I have the honor to recommend that the particular attention of Congress be invited to this subject, in order that such legislation may be enacted as will correct the evils mentioned. In this connection reference is made to the statement contained on page 18 of my annual report for the fiscal year 1907, that "soon after assuming my present duties I issued instructions forbidding the enlistment in the Navy of persons not citizens of the United States." The passage of the legislation herein recommended would perfect this endeavor to have all men serving on our vessels of war citizens of the United States, by making possible the naturalization of the aliens who were among the enlisted personnel at the time the order referred to was issued.

For the convenience of the committee there is inclosed the draft of a clause intended to accomplish the purpose desired, which it is thought might appropriately be inserted in the naval appropriation bill under the heading "Pay of the Navy."

Very respectfully,

V. H. METCALF, *Secretary.*

HON. GEORGE EDMUND FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives.*

Provided, That any alien of the age of 21 years and upward who has faithfully served or may hereafter so serve five consecutive years in the United States Navy or Marine Corps shall be admitted to become a citizen of the United States upon his petition without any previous declaration of his intention to become such, and without proof of residence on shore, and the court admitting such alien shall, in addition to proof of good moral character, be satisfied by competent proof from naval sources of such service; *And provided further*, That any court which now has or may hereafter be given jurisdiction to naturalize aliens as citizens of the United States may immediately naturalize any alien applying under, and furnishing the proof prescribed by, the foregoing provision.

[No. 56.]

**TO PROMOTE THE ADMINISTRATION OF JUSTICE IN THE NAVY—
DEPARTMENT LETTER.**

**Navy Department,
Washington, January 11, 1908.**

SIR: The Department notes that on the 9th ultimo you introduced in the House a bill (H. R. 6252) to promote the administration of justice in the Navy, which bill appears to be in the language of those introduced in the Senate and House of Representatives in the Fifty-ninth Congress (S. 699 and H. R. 13563), but which failed of enactment.

Inasmuch as the provisions of this bill, if enacted into law, would supply long-felt needs of the Navy, the Department takes the liberty of submitting herewith a detailed consideration of its various sections in order to emphasize their importance to the service.

Sections 1 to 7 treat of the one-officer or "deck courts."

Section 1 authorizes certain officers to order courts for the trial of enlisted men for minor offenses.

Section 2 authorizes the "deck court" or one-officer court.

Section 3 provides for a recorder for such courts.

Section 4 empowers the officer ordering the court to remit or mitigate any sentence imposed.

Section 5. Courts to be governed by such rules and regulations as the President may prescribe.

Section 6. The record of proceedings of such courts shall contain only matters necessary to enable the reviewing authorities to act intelligently thereon.

Section 7 provides that no person who objects to trial before a "deck court" shall be so tried, but shall be ordered before a summary or general court as may be appropriate.

The question of a revision of the present method of administering justice in the Navy, with special reference to summary courts-martial, has been before the Department for a number of years.

"Deck courts" are proposed as additional tribunals, to take a place intermediate between the disciplinary measures now in the hands of commanding officers, on the one side, and those exercised by summary courts-martial, on the other, without disturbing materially the functions of either.

At present minor offenses committed by enlisted men which demand more severe punishment than commanding officers are authorized by law to inflict must be dealt with by a summary court-martial.

Over 6,000 summary courts-martial were held during the year ending June 30, 1907. Each such court requires the detail of four officers to try the offender and allot a punishment. In a large majority of cases there is no question as to the fact of the offense having been committed, such as absence without leave, absence over leave,

drunkenness, etc., but these four officers are required to assemble, hear testimony to prove the specification, and adjudge a sentence.

This procedure necessitates the withdrawal of these officers from their other duties in connection with the ship or station to which they are attached for a period of time varying from one hour to several days, according to circumstances and the nature of the case to be tried. Under the present conditions on shipboard, withdrawal of officers from their drills and other duties is most undesirable, and a measure to relieve this embarrassment and at the same time provide a system for the administration of justice which is simple, efficacious, and speedy, is to be highly commended.

Congress in 1898 (act of June 18, 1898, 30 Stat. 483), relieved the Army of this embarrassment by the establishment of the one-officer court. The results have proved so satisfactory that this tribunal has in practice substantially superseded the more cumbrous garrison and regimental courts, which, in powers and organization, substantially resemble the present naval summary courts.

During the sessions of the courts so authorized, one officer only, instead of four, need be withdrawn from other duty. Thus, roughly speaking, three-fourths of the officers now engaged in summary court work will be relieved therefrom and be available for the regular ship work during the time thus spent. Commanding officers of every ship in the Navy can testify to the embarrassment caused by the present system due to the frequent interruptions of drills, etc., owing to the absence of division officers on court-martial duty.

Time will be saved in other ways. Certain formalities of appointment, organization, and procedure will be eliminated; the time occupied and the objectionable features involved in clearing the court for consultation will be dispensed with; a single officer serving in this capacity, having the matter in his own hands, can promote dispatch without sacrificing the substantial interests of justice.

In addition to the foregoing considerations, which bear upon the question of immediate relief from present embarrassments, it is believed that incidental advantages would flow from the proposed change. The feature of undivided responsibility for the conduct of cases and the punishments imposed would doubtless tend to promote thoughtful, discriminating, and uniform administration of discipline.

Judging from the practice of the police courts of the country in dealing with misdemeanors, and that of the Army in trying lesser military offenses before a court consisting of a single officer, it is believed that the administration of justice will be promoted by the adoption of this system of trial in the Navy.

Section 8 of the bill authorizes one-officer courts and summary courts to adjudge either a part, or the whole, as may be appropriate, of any one of the punishments authorized by law for these courts to adjudge. (30 A. G. N.) As the law now stands, for instance, one of the sentences authorized is "solitary confinement, not exceeding 30 days, in irons, single or double, on bread and water, or on diminished rations." If it should be considered desirable by the court to adjudge solitary confinement on bread and water without irons, it can not now be legally done.

The purpose of this section is to allow discretion to the court to the limited extent here shown.

Section 9 of the bill authorizes the Secretary of the Navy to set aside the proceedings or remit or mitigate in whole or in part the sentence imposed by any naval court-martial convened by his order or by that of any officer of the Navy or Marine Corps.

The judiciary system of the Navy does not contain any explicit provision giving the right of appeal from a lower to a higher court. In some sense the convening authority is a court of appeal; and for many years it has been the practice of the Secretary of the Navy, through the office of the Judge-Advocate-General, to carefully scrutinize and review the proceedings of all naval courts-martial, general and summary. This has been found essential to the establishment of uniformity in the administration of justice. The practice rests, in some degree, upon the provision of the act of June 8, 1880, creating the office of Judge-Advocate-General and requiring that, "under direction of the Secretary of the Navy," he shall "receive, revise, and have recorded the proceedings of all courts-martial," etc. It has also been suggested that this power is vested in the Secretary by virtue of the general responsibilities and obligations imposed upon him as head of the Navy Department. Again, some of the Secretaries have considered that it was based upon the pardoning power exercised by them as representing the President in matters within the sphere of their duty. Upon whatever basis it rests, the practice is one of long standing, and the exercise of such powers by some authority seems absolutely necessary to prevent irregular if not illegal action of naval courts, which, by virtue of their composition, and particularly their incidental and temporary character, are not always acquainted with the rules, decisions, findings, and sentences of other courts. The recognition of this practice, by a clause declaratory of the law, is doubtless appropriate and desirable.

Section 10 of the bill extends authority to convene general courts-martial to the commanding officer of any naval station beyond the continental limits of the United States.

As the law now stands (38 A. G. N.), general courts-martial may be convened only by the President, the Secretary of the Navy, or the commander in chief of a fleet or squadron. Consequently it is deemed incompetent for the Department to authorize officers commanding naval stations in the island possessions of the United States to convene general courts. This inability gives rise to great delay in the punishment of serious offenses at remote stations. For instance, under the present conditions if a serious offense should be committed by an officer or enlisted man at Samoa or Guam, the law requires that a report of the offense be sent to the Navy Department at Washington. If considered grave enough to warrant trial by general court-martial, charges and specifications are drawn up in the Department and a general court ordered. These charges and specifications are then sent to Samoa or Guam and the case brought to trial. The proceedings and sentence are then forwarded by mail to the Department for revision and the Department's action as to approval or disapproval of the findings and sentence. In the meantime, between the sending of the original report of the offense and the receipt of the notification of the action of the Department on the proceedings and sentence, the accused party has either been confined or a prisoner at large. Months of uncertainty would be eliminated if

the provisions of this section were the law, as well as the advantage of promptness in the administering of punishment.

A recent example of the results of this lack of authority for commandants of remote naval stations to order general courts-martial is shown in the case of two men who deserted the U. S. S. *Adams* on June 14, 1907, prior to her sailing from Samoa for the United States. These men were apprehended shortly after the sailing of the *Adams* and recommended for trial by general court-martial. After the necessary correspondence these men were brought to trial October 29, 1907, and the proceedings and sentence received at the Department on December 30, 1907. They were each sentenced to four months' imprisonment and dishonorable discharge. In cases involving confinement, the confinement dates from the date of approval of the sentence by the convening authority. In view of the fact that the men had already been confined for six months and that it would probably be two months more before the Department's action on the case would be received at Samoa, the period of confinement was remitted. Comment as to the increase to the efficient administration of justice had the commandant of the naval station had authority to convene the general court in these cases seems hardly necessary.

Section 11 of the bill provides for the attendance of civilian witnesses before naval courts-martial or courts of inquiry.

The Department has for many years contended with the embarrassments pertaining to the inability to compel the attendance of civilian witnesses before courts-martial. In many cases of offenses committed on shore the testimony necessary to convict can only be obtained from civilian witnesses, and if they do not choose to testify there is no means of securing their testimony.

Congress has provided for this contingency in "military courts" (sec. 1202, R. S.), but the Attorney-General has held that the provisions of this section are not applicable to the Navy (XIX op., 501). The fact that naval courts are practically the only courts of justice in the country which are not empowered to compel the presence of necessary witnesses appears to the Department to be an unnecessary discrimination against the naval service in the efficient administration of justice.

It is highly important in all relations with civilians that every proper requirement of discipline should be observed by persons in the Navy, and particularly that discredit should not be brought upon the service by allowing offenses committed by officers or men in the presence of civilians or resting in their knowledge to go unpunished. Procedure in this class of cases is, however, often embarrassed by the fact that under existing law naval courts have no power to compel the attendance or to secure the testimony of civilian witnesses. It is true that these courts may issue a subpoena to such witness, but if the subpoena is disregarded there is no remedy.

It rarely happens that witnesses are desirous of appearing and giving testimony before any court, and being able to avoid so doing where courts-martial are concerned, they frequently, whether from a willingness to oblige the parties concerned or from a natural reluctance to perform an unpleasant duty, decline to give their testimony, and a failure of justice results. This has happened in instances of

importance, and it occurs every year in minor cases that the administration of justice is thus hampered. The guilty escape punishment or are not brought to trial because of the want of evidence essential to their conviction, and it is not an overstatement to say that innocent persons may occasionally be convicted because of the absence of evidence necessary to explain or controvert testimony introduced by the prosecution. Naval courts, created by law and clothed with jurisdiction to impose heavy fines and penalties, are yet denied the power to obtain all the evidence deemed necessary to a just determination of the matters upon which it is their duty to pass judgment. Such a state of affairs necessarily exerts a demoralizing influence upon the service.

The officers and men connected with the Navy are no longer an isolated class, as was formerly the case in a large degree, but belong to an organization which forms an integral part of the body politic, touching civil life at many points, and it is a matter of observation that in the numerous and complicated dealings of officers and men with civilians by far the greater number of serious questions of discipline arise. If, for example, an officer in the course of such dealings is guilty of conduct of such a character as to bring discredit upon the service, it may become necessary and proper that he be brought to trial before a court-martial; but such courts, being empowered to obtain evidence from naval sources only, are powerless to ascertain fully the facts connected with offenses, where a knowledge thereof rests exclusively with civilian witnesses, unless such witnesses voluntarily consent to appear, and this, as a rule, they are very naturally reluctant to do.

It has not infrequently happened that one officer has been promptly punished for the commission of an offense, the particulars of which were known to naval witnesses, while another, believed to be guilty of like or even more flagrantly discreditable conduct, has wholly escaped punishment therefor, because it happened that the witnesses in his case were outside of naval jurisdiction and would not give testimony.

The failure of justice resulting from this cause works serious injury to the discipline and to the repute of the service. Questions involving the responsibility of fiduciary officers; drunkenness or other scandalous conduct on shore can usually be proved by civilian witnesses only. Compulsory process to compel the attendance of such witnesses is necessary to prevent failure of justice. It does not appear that such power can be abused.

The act of March 2, 1901 (31 Stat., 950), entitled "An act to prevent the failure of military justice, and for other purposes," provides for the compulsory attendance of civilian witnesses before courts-martial of the Army.

Section 12 of the bill provides for punishment of witnesses for contempt of court, etc.

Articles 42 of the articles for the Government of the Navy contains the following provision:

Whenever any person refuses to give his evidence, or to give it in the manner provided by these articles, or prevaricates, or behaves with contempt to the court, it shall be lawful for the court to imprison him for any time not exceeding two months.

Notwithstanding the use of the comprehensive term "any person" in article 42, it is observed that the article itself is a part of section 1624 of the Revised Statutes, which provides that "the Navy of the United States shall be governed by the following articles," and I find no case on record in which the power conferred by article 42 has ever been exercised except with respect to persons in the naval service.

In this connection it is important to note that the same causes have produced a like result in the British navy, and the difficulty has been met by the following provisions, which are contained in article 126 of the British army act:

(1) Where any person who is not subject to military law commits any of the following offenses, that is to say:

On being duly summoned as a witness before a court-martial, and, after payment or tender of the reasonable expenses of his attendance, makes default in attending; or, being in attendance as a witness, refuses to take an oath legally required by a court-martial to be taken; or refuses to produce any document in his power or control legally required by a court-martial to be produced by him; or refuses to answer any question to which a court-martial may legally require an answer, the president of the court-martial may certify the offense of such person under his hand to any court of law in the part of Her Majesty's dominions where the offense is committed which has power to punish witnesses if guilty of like offenses in that court, and that court may thereupon inquire into such alleged offense, and after examination of any witnesses that may be produced against or for the person so accused, and after hearing any statement that may be offered in defense, if it seem just, punish such witness in like manner as if he had committed such offense in a proceeding in that court.

It would seem that the failure of Congress to enact some effective provision on this subject must be due to the fact that the necessity for such legislation and the scope which it might properly take has not been brought to its attention with sufficient clearness. It is important to observe that a provision of this character need not and should not be so framed as to give to naval courts any jurisdiction over civilians or any right to punish them for offenses. Its purpose and effect should be merely to empower such courts to obtain all evidence proper and necessary to enable them to hear and justly to determine the matters over which they have jurisdiction. So far as the persons over whom the jurisdiction of naval courts may be exercised are concerned, it extends, in time of peace, to persons in the naval service only, and it is neither proposed nor desired in any way to enlarge their jurisdiction in this respect; but there is no provision of the Constitution or of any statute limiting naval courts to the consideration of evidence which may be in the possession of one class of witnesses only or indicating legislative intent that they should be so limited. To thus cripple them in the exercise of the functions which lie within the proper sphere of their jurisdiction tends to defeat the purposes for which they were created. Whenever it has become incumbent upon the higher civil courts of the United States to review questions connected with the jurisdiction of military and naval courts-martial the decisions of the former have been uniformly characterized by the broadest liberality and the fullest recognition of the importance of the functions of naval and military courts when operating within the sphere to which they are properly restricted.

In this connection it is observed that section 3175 of the Revised Statutes authorized the judges of district courts and commissioners of circuit courts of the United States to punish as for contempt the re-

fusal or neglect of any person to obey the summons of, answer interrogatories, or give testimony before collectors of internal revenue. A similar provision, modified only so far as to render it applicable to the naval service, would probably meet all requirements.

Section 13 provides for the taking of depositions of witnesses when impracticable to secure their personal attendance before the court.

Article 91 of the Articles of War provides that—

The depositions of witnesses residing beyond the limits of the State, Territory, or district in which any military court may be ordered to sit, if taken on reasonable notice to the opposite party and duly authenticated, may be read in evidence before such court in cases not capital.

The articles for the government of the Navy contain no similar provisions. It frequently happens in the naval service that a considerable time must elapse between the date on which an offense is committed and the convening of a naval court for the trial of the accused. In that interval witnesses may have been ordered to other duty on foreign stations, at a great distance from the place where the court is being held. It is often a grave question whether the interests of the public service require that such witnesses be subpoenaed and recalled from the regular duty to which they have been assigned, involving loss of time and expense of travel, in order that they may give testimony at the trial.

While it is undoubtedly desirable that the testimony of witnesses be taken in open court and in the presence of the accused in all cases where it is practicable to do so, it would seem that a provision similar to that above quoted, authorizing the introduction in evidence before naval courts of depositions of witnesses stationed or residing at such a distance from the place where such courts are held that it is not practicable to secure their personal attendance, would materially promote the administration of justice in the Navy.

As a rule, the witnesses whose evidence is required before naval courts-martial are persons in the naval service. Such witnesses are subject to orders at all times, and have, as a general thing, no permanent place of duty, but are transferred from one station or vessel to another whenever occasion requires. The vessels composing one squadron may be together or widely separated, as the exigencies of the service demand. In consequence of these conditions it not infrequently happens that during the interval which must elapse between the commission of an offense and the trial of the person accused, witnesses important to the prosecution or defense are ordered to distant stations. This peculiarity of the naval service renders the use of depositions, under proper restrictions, far more important than in the case of criminal prosecutions before the civil courts, where the majority of the witnesses are generally taken from the permanent population of the community in which the offense is committed.

The evils consequent upon these peculiar conditions are several. The Department hesitates to order the trial of an offender in cases where the accused is at some navy-yard or station in the United States while witnesses whose testimony should be had at the trial are found to be on their way to Alaska, China, or other distant station. If convened, the court might, under such circumstances, be unable justly to determine the case brought before it. On the other hand, if the trial

be delayed until the witnesses return, unnecessary hardship is imposed upon the person accused, whether guilty or innocent; and if witnesses widely separated are brought together especially for the purposes of the trial serious inconvenience to the service, loss of time, and expense is entailed. It is true that by the exercise of promptness and judgment in ordering courts and keeping important witnesses within reach these evils can be in some measure avoided; but cases arise in which this can not be done; and experience has, in my opinion, demonstrated that legislation on this subject is desirable.

While carefully weighing and recognizing the objections to the use of depositions in criminal cases, under ordinary circumstances, I am nevertheless satisfied that the enactment, with reference to the Navy, of a clause similar to that above quoted, and which is in force with regard to the Army, would promote the administration of justice and tend to correct serious evils now existing, it being promised, of course, that it is by no means proposed or suggested that the examinations of witnesses in open court be done away with, but that the admission of depositions be authorized only in cases where personal attendance is not practicable.

It is believed that the use of depositions in proper cases would tend to reduce the expenses attending courts-martial on the one hand, and on the other would prove of material value in promoting the ends of justice by placing at the disposal of the prosecution or the defense, as the case may be, evidence which must, in the absence of authority for their use, be dispensed with whenever it happens that witnesses are so far away or are engaged upon such duty that it is not deemed proper to order them to appear before the court.

Section 14 provides for issuance of suitable civilian clothing and a cash gratuity in certain cases to men discharged from naval prisons.

By act of March 3, 1875, it is provided that "on the discharge from any prison of any person, convicted under the laws of the United States on indictment, he or she shall be provided by the warden or keeper of said prison with one plain suit of clothes and \$5 in money, for which charge shall be made and allowed in the accounts of said prison with the United States," provided that the term of confinement imposed be not less than six months. This clause relates to civil prisons and prisoners only. Section 1355 of the Revised Statutes (chap. 6, military prisons, title 14, "The Army") reads: "Every prisoner upon being discharged from prison shall be furnished with decent clothing." No such specific authority is conferred by law in the case of discharged naval prisoners. In cases where men discharged from naval prisons have no money due them, they must be turned out of prison without means, and thus exposed to temptation, vagrancy, and crime, liable to become a tax upon the community and a reproach to the naval service. While such men usually have the uniform worn at the time they were committed, such uniform may not be suitable or seasonable at the time of discharge. The Comptroller, in a liberal decision rendered May 23, 1902, has held that "where a prisoner at the end of his term of confinement is without suitable clothing to enable him to appear in public decently clad, the Government must of necessity supply such clothing, for it is not to be supposed that the law contemplated that he should be turned out of prison with

nothing to wear." There is, however, no specific provision of law authorizing this, nor any appropriation therefor, and such action has been taken by virtue of necessity rather than under any express sanction of law, and it can not be carried far enough to fully and justly meet requirements. It is accordingly suggested that some such provision as that embodied in section 14 of the bill in question be favorably considered by the committee.

In conclusion I have the honor to earnestly recommend favorable action upon this bill (H. R. 6252) during the present session of Congress.

Very respectfully,

V. H. METCALF,
Secretary.

HON. GEORGE EDMUND FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives.*

[No. 57.]

NAVY DEPARTMENT,
Washington, January 11, 1908.

**TO PERMIT THE SECRETARY OF THE NAVY TO MITIGATE THE
LOSS OF RIGHTS OF CITIZENSHIP IMPOSED BY LAW UPON DE-
SERTERS FROM THE NAVAL SERVICE—DEPARTMENT LETTER.**

SIR: Under the provisions of section 1996 and 1998 of the Revised Statutes all persons convicted of desertion from the military or naval service of the United States, in addition to the punishment inflicted by sentence of the court before which they are tried, ipso facto forfeit their rights of citizenship and are rendered "forever incapable of holding any office of trust or profit under the United States, or of exercising any rights of citizens thereof."

As stated in my annual report for 1907 (p. 17), it is not believed that these statutes discriminate sufficiently between the punishment that should appropriately be awarded to different classes of offenders. The records of the naval service show that a large proportion of desertions are committed by young men in their first enlistment, who are unaccustomed to the incidents of a seagoing life and who do not realize the gravity of the situation in which they place themselves nor weigh the severities of the laws above mentioned. That these youngsters should be subjected to such penalties, imposed by statutes enacted during the civil war, and "manifestly intended as a means of enforcing the draft and of preventing desertion at a period of emergency and public danger," is a hardship that could not have been contemplated by Congress at the time of passing the acts in question.

While the authority empowered to convene general courts-martial may remit or mitigate any other element of the punishment imposed, under the inflexible provisions of these statutes such clemency can not be extended, and there is no relief from these penalties except in such unusual cases as may justify action by the President in the form of pardon or the passage of a special act of relief by the Congress.

After careful consideration of the matter, I am of opinion that the interests of the naval service and of the country at large would be promoted by the passage of a provision vesting in the Secretary of the Navy power to mitigate or remit the loss of citizenship imposed by sections 1996 and 1998 of the Revised Statutes where it appears that the commission of the offense was accompanied by extenuating circumstances and that the person convicted is not deserving of such extreme punishment.

For the convenience of the committee, in case the above recommendation should be favorably regarded, there is inclosed the draft of a bill "to authorize the Secretary of the Navy, in certain cases, to mitigate or remit the loss of rights of citizenship imposed by law upon deserters from the naval service," which it is thought would accomplish the purpose desired.

Very respectfully,

V. H. METCALF,
Secretary.

HON. GEORGE EDMUND FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives.*

A BILL. To authorize the Secretary of the Navy, in certain cases, to mitigate or remit the loss of rights of citizenship imposed by law upon deserters from the naval service.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the loss of rights of citizenship imposed by law upon deserters from the naval service may be mitigated or remitted by the Secretary of the Navy where the offense was committed in time of peace, and where the exercise of such clemency will not be prejudicial to the public interests.

[No. 58.]

NAVY DEPARTMENT,
Washington, January 11, 1908.

**MAKING IT LAWFUL FOR ANY CIVIL OFFICER WITH AUTHORITY
UNDER LAWS OF THE UNITED STATES TO ARREST DESERTERS
FROM NAVY OR MARINE CORPS—DEPARTMENT LETTER.**

SIR: The Department is experiencing much difficulty in securing the arrest of deserters from the naval service, owing to recent opinions of the Attorney-General and of a court of the State of Missouri to the effect that there is no authority in law for the arrest of such deserters by civil officers.

The naval appropriation acts have annually contained an appropriation for the "apprehension and delivery of deserters and stragglers" (see, for example, act of March 2, 1907, 34 Stat. L., p. 1177), and articles 901, 902, and 904 of the Navy Regulations provide that "a reward not exceeding \$20 may be offered for the recovery of a deserter, and one not exceeding \$10 for the recovery of a straggler," descriptive lists, stating the amount of the reward offered, to be sent to the civil authorities where their aid is required.

It has occasionally happened, however, that the State officials have declined to render assistance in the apprehension of deserters. For example, the Department in August, 1906, received a report from the commanding officer of the receiving ship *Philadelphia*, at the navy-yard, Puget Sound, Washington, that there were many deserters from the naval service at large in Seattle and near-by cities; that in one instance a hospital apprentice, first class, who had deserted from the *Philadelphia* in June, 1906, was openly practicing the profession of "physician and surgeon" in the city of Seattle, and that the civil authorities refused to return such deserters so long as they did not violate local laws. The matter was referred to the Attorney-General, with request that the United States marshal for the district be instructed to assist in the arrest of these deserters. It was in response to this request that the Attorney-General rendered the opinion above referred to, and stated that, in the absence of explicit legislation authorizing such action, he could not "instruct the United States marshal for the western district of Washington to apprehend and return deserters from the Navy."

Following the decision of the court in Missouri, August, 1907, it is reported to the Department that many deserters have been coming to the State from other parts of the country, knowing that they would there be immune from arrest.

Somewhat similar conditions having existed in the Army after the decision of the Supreme Court in the case of *Kurtz v. Moffitt* (115 U. S., 487), the matter was remedied by the insertion of the following

clause in the act "to promote the administration of justice in the Army," approved October 1, 1890 (26 Stat. L., 648) :

That it shall be lawful for any civil officer having authority under the laws of the United States or of any State, Territory, or District to arrest offenders, to summarily arrest a deserter from the military service of the United States and deliver him into the custody of the military authority of the General Government.

The use of the word "military" in the above enactment has been held to preclude the extension of the authority therein conferred to the arrest by civil officers of deserters from the Navy.

Inasmuch as the Articles for the Government of the Navy provide for the punishment of deserters from the naval service, it would seem entirely proper that some provision be made by Congress for their arrest. That this can not be accomplished by officers of the Navy appears clear from the nature of their duties and the fact that such deserters are located largely in the interior of the country. As stated by the Attorney-General in discussing the army statute above quoted, "the reason of the case also should include the Navy as well as the Army. The sensible view is that civil assistance is expedient and necessary in one case as much as the other."

The prompt arrest and punishment of deserters being a matter of the greatest importance to the discipline of the service, I have the honor to urgently recommend the passage of a provision extending the act of October 1, 1890 (above cited), to authorize the arrest by civil officers of deserters from the Navy or Marine Corps of the United States. The draft of a bill which has been prepared for consideration of the committee is inclosed.

Very respectfully,

V. H. METCALF,
Secretary.

HON. GEORGE EDMUND FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives.*

A BILL To provide for the arrest of deserters from the naval service of the United States.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That it shall be lawful for any civil officer having authority under the laws of the United States or of any State, Territory, or District to arrest offenders, to summarily arrest a deserter from the Navy or Marine Corps of the United States and deliver him into the custody of the naval authorities.

[No. 59.]

NAVY DEPARTMENT,
Washington, January 11, 1908.

**TO AMEND SECTION THIRTY-SEVEN HUNDRED AND FORTY-FOUR
OF THE REVISED STATUTES—DEPARTMENT LETTER.**

SIR: I have the honor to invite attention to the remarks appearing on page 15 of my annual report for 1907 regarding the requirement of existing laws (secs. 512 to 515, and secs. 3744 and 3745 of the Revised Statutes) that certified copies of all contracts made by the Secretary of the Navy be filed in the returns office of the Department of the Interior, "together with all bids, offers, and proposals to him made by persons to obtain the same, and with a copy of any advertisement he may have published inviting bids, offers, or proposals for the same."

Inasmuch as, under the above provisions, copies of contracts and papers when so filed in the returns office are open to inspection by "any person" desiring to examine them, it is suggested that section 3744 of the Revised Statutes be so amended as to except from its operation plans, specifications, and other data of a confidential nature relating to contracts for the construction of naval vessels. While it is not altogether clear that such papers are within the meaning of these statutes as they now read, the passage of an amendment explicitly excepting them is recommended, in order that all doubt on the subject may be removed.

For the convenience of the committee if the above recommendation should meet with approval, I inclose the draft of a bill "to amend section 3744 of the Revised Statutes."

Very respectfully,

V. H. METCALF,
Secretary.

HON. GEORGE EDMUND FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives.*

A BILL To amend section thirty-seven hundred and forty-four of the Revised Statutes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That section thirty-seven hundred and forty-four of the Revised Statutes of the United States be, and the same is hereby, amended by the addition thereto of the following proviso:

"Provided, That the Secretary of the Navy may withhold from papers transmitted to the returns office any plans, specifications, or other matter of a confidential nature the publication of which would, in his opinion, be prejudicial to the public interests."

[No. 60.]

NAVY DEPARTMENT,
Washington, January 11, 1908.

**TO AMEND SECTION SIXTEEN HUNDRED AND TWENTY-FOUR,
ARTICLE THIRTY-FOUR, OF THE REVISED STATUTES.**

SIR: Referring to the act of March 3, 1877 (19 Stat. L., p. 810), which authorizes the destruction of the records of certain minor courts-martial in the Army after a period of two years from date of trial, I have the honor to recommend that similar legislation be enacted in connection with summary court-martial records in the Navy.

Section 1624, article 34, Revised Statutes, prescribes that proceedings of summary courts-martial in the Navy shall be transmitted to the Navy Department. In the absence of any specific authority to destroy these records they have all been kept on file in the Navy Department and have now grown to considerable volume.

The law authorizing summary courts-martial was approved March 2, 1855 (10 Stat. L., 627) and revised July 15, 1870 (16 Stat. L., 384). The number of summary courts-martial held each year keeps pace with the increase of the Navy and the corresponding increase of the enlisted personnel. The number of such trials held for the ten years from 1895 to 1905 is shown below:

1895 -----	963	1901 -----	2, 246
1896 -----	659	1902 -----	2, 582
1897 -----	903	1903 -----	4, 565
1898 -----	825	1904 -----	5, 725
1899 -----	1, 815		
1900 -----	1, 462	Total -----	21, 745

In this connection, I inclose for your consideration the draft of a clause "to amend section 1624, article 34, of the Revised Statutes."

Very respectfully,

V. H. METCALF, *Secretary.*

HON. GEORGE EDMUND FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives.*

A BILL To amend section sixteen hundred and twenty-four, article thirty-four, of the Revised Statutes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That section sixteen hundred and twenty-four, article thirty-four, of the Revised Statutes of the United States be, and the same is hereby, amended by adding thereto the following words: "where they shall be kept on file for a period of two years from date of trial, after which time they may be destroyed, in the discretion of the Secretary."

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[No. 61.]

NAVY DEPARTMENT,
Washington, January 11, 1908.

**TO ESTABLISH A FORM OF GOVERNMENT FOR TUTUILA, SAMOA,
AND THE ISLAND OF GUAM—DEPARTMENT LETTER.**

SIR: As stated in my annual report for 1907 (p. 21), this Department has repeatedly recommended that Congress enact legislation establishing a form of government for the island of Guam. This island was placed under the control of the Navy Department by Executive order dated December 23, 1898, in pursuance of which an officer of the Navy was appointed by the Secretary as governor of Guam, and this officer and his successors have continued to administer the affairs of the island. Under this method of government much has been accomplished for the betterment of the island, but the Constitution and laws of the United States have never been extended to it, nor has Guam ever been organized as a Territory.

The Department considers that the United States, having assumed control of this island, owes it to the people of Guam to make legislative provision for their government, and I therefore earnestly renew my recommendation that Congress give consideration to this matter at the approaching session.

Like recommendation is made with respect to the island of Tutuila, Samoa, which is in a position similar to that of Guam. Tutuila was turned over to the control of the Navy Department by Executive order of February 19, 1900, for the purposes of a naval station, since which time the commandant has been commissioned as governor, exercising functions of the same character as the governor of Guam.

In order that the foregoing matters may be brought to the immediate attention of Congress, I venture to suggest that, if the committee deem such action appropriate, a resolution be introduced calling on the proper committee to consider and report upon a form of government for the island of Tutuila, Samoa, and the island of Guam. The rough draft of such a resolution is inclosed, in case the committee should adopt this suggestion.

Very respectfully,

V. H. METCALF,
Secretary.

HON. GEORGE EDMUND FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives.*

Resolution.

Resolved, That the Committee on Insular Affairs be instructed to consider and report, by bill or otherwise, upon a form of government for the island of Tutuila, Samoa, and the island of Guam.

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[No. 62.]

NAVY DEPARTMENT,
Washington, January 11, 1908.

**TO PROVIDE FOR FINISHING THE CRYPT OF CHAPEL AT UNITED
STATES NAVAL ACADEMY—DEPARTMENT LETTER.**

SIR: Under date of April 26, 1906, my predecessor addressed a letter to you, inviting attention to the crude and unfinished condition of the crypt of the chapel at the Naval Academy, which had been selected as the place of final deposit of the body of John Paul Jones, and recommending that suitable provision be made for completing this part of the building in an appropriate manner.

Under existing contracts the crypt of the chapel has been left in the rough, with exposed concrete and brick, and appropriations heretofore made for buildings at the Naval Academy are not sufficient to cover the finishing of the crypt in the manner desired, even if such action could properly be taken without the special sanction of Congress.

Before submitting its letter above mentioned the Department obtained an estimate and tentative plan for the completing of the crypt in a substantial, though not expensive, style of finish and decoration, at a proposed cost of \$135,000.

Believing that, from all considerations, the crypt of the chapel at the Naval Academy should not be left in its present condition, I have the honor to submit a draft of a bill making provision for its proper completion, concurring in and renewing the recommendation made by my predecessor, that the matter receive your favorable consideration and that of the committee. The amount to be appropriated for this purpose is, in the draft submitted, left blank.

Very respectfully,

V. H. METCALF, *Secretary.*

HON. GEORGE EDMUND FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives.*

NAVY DEPARTMENT,
Washington, April 26, 1906.

SIR: The crypt of the chapel at the Naval Academy, Annapolis, having been selected as the place of final deposit of the body of John Paul Jones, I have the honor to recommend that suitable provision be made for finishing this part of the building in a manner appropriate to such purpose.

Under existing contracts the crypt of the chapel will be left in the rough, with exposed concrete and brickwork. The Department has been in correspondence with the architect of the building, Mr. Ernest Flagg, and has received from him an estimate and tentative plans for the finishing of the crypt. A copy of the letter of the architect is inclosed for the information of the committee. It will be seen that Mr. Flagg's suggestions are based upon a substantial, though not the more costly, style of finish and decoration.

Inasmuch as the appropriations heretofore made for the erection of buildings at the Naval Academy are not sufficient to cover the finishing of the crypt in the manner herein suggested, even if such action could appropriately be taken without the special sanction of Congress, the draft of a measure authorizing the work and providing an appropriation of \$135,000 therefor is inclosed.

Learning that in the preliminary steps connected with this matter, before it was taken up by the Government, Gen. Horace Porter, ambassador of the United States at Paris, had expended from his private purse the sum of \$35,000, this Department was prepared to recommend that he be reimbursed therefor; but he has most generously and patriotically declined to accept such reimbursement, suggesting that, instead, the sum originally proposed for the finishing of the crypt, \$100,000, and which, it was feared, would be inadequate to do so appropriately, be increased by the amount of any reimbursement to which he might be supposed to be entitled. In view of this public-spirited suggestion by General Porter the sum named in the estimate for the finishing and decoration of the crypt is made \$135,000. This sum, it is believed, is barely sufficient to complete the work in a simple, but suitable and substantial manner.

Very respectfully,

CHARLES J. BONAPARTE,
Secretary.

HON. GEORGE EDMUND FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives.*

A BILL To provide for finishing the crypt of the chapel, United States Naval Academy, Annapolis, Md., as a permanent resting place for the body of John Paul Jones.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the sum of _____ dollars, or so much thereof as may be necessary, be, and is hereby, appropriated, out of any moneys in the Treasury not otherwise appropriated, to be immediately available, for completing and furnishing in every respect the crypt of the chapel at the United States Naval Academy, Annapolis, Maryland, as a permanent resting place for the body of John Paul Jones.

SEC. 2. The Secretary of the Navy shall have suitable plans prepared by the architect of the building for the entire work, within a limit of cost, including all expenses of every character connected therewith, not exceeding the amount herein appropriated: *Provided*, That the estimates, plans, and specifications shall be approved by the Superintendent of the Naval Academy and the Secretary of the Navy before the work is undertaken.

[No. 63.]

NAVY DEPARTMENT,
Washington, January 11, 1908.

**FOR THE RELIEF OF CERTAIN COMMISSIONED AND WARRANT
OFFICERS APPOINTED WHILE SERVING IN THE REGULAR
NAVY—DEPARTMENT LETTER.**

SIR: Under the terms of section 13 of the "personnel act," approved March 3, 1899 (30 Stat. L., 1007), commissioned and warrant officers of the Navy who are appointed from civil life receive credit, in computing their pay, for five years' constructive service. This provision, which has been of much benefit to the service, is apparently based upon the theory that persons so appointed must have spent a considerable period in qualifying, at their own expense, for the duties of a naval officer, and are entitled, accordingly, to credit therefor.

The Department's attention, however, has been called to occasional cases where men already in the Navy have, as the result of a course of study before entering the service and, perhaps, by added industry during their spare moments, fitted themselves for the duties of commissioned or warrant officers within a short time after their enlistment. In such cases the officers are now given credit only for the period actually served, which, if less than five years, places them on a lower footing as regards pay than those who have entered directly from civil life.

In a recent instance that has come before the Department a hospital apprentice, first class, had, before his enlistment, January 23, 1907, graduated from a medical college in Philadelphia, and afterwards continued his studies until he was appointed an assistant surgeon, on July 23, 1907. As a result of the six months' service which he had thus rendered to the Navy, upon his appointment as an assistant surgeon he received but \$1,500 per annum, whereas an assistant surgeon who was appointed on the next day from civil life was given an increase of 10 per cent for five years' constructive service, making his pay \$1,650 per annum.

To remedy the injustice resulting from this discrimination, and which has a tendency to discourage young men serving in the Navy from making the necessary efforts to improve their status, I have the honor to recommend that a bill be introduced at the present session of Congress to place officers appointed while serving in the Navy on the same footing, as regards pay, as those appointed from civil life, where the actual service of such officers has been less than five years. As will be noticed from the inclosed draft of a bill, which is submitted for the consideration of the committee, it is not the intention of the Department to have the officers in question given credit for five

years' constructive service in addition to the actual service which they have rendered, but to include such actual service in computing the five years' credit.

Very respectfully,
 Hon. GEORGE EDMUND FOSS, V. H. METCALF,
Chairman Committee on Naval Affairs, *Secretary.*
House of Representatives.

A BILL For the relief of certain commissioned and warrant officers appointed while serving in the regular Navy.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That all officers, including warrant officers, who have been or may be appointed while serving in the regular Navy shall, on the date of appointment, be credited, for computing their pay, with five years' service: *Provided,* That the total previous naval service of such officers shall have been less than five years: *And provided further,* That in computing the five years' credit given by this act all previous service shall be included.

[No. 64.]

NAVY DEPARTMENT,
Washington, January 14, 1908.

**TO PROVIDE FOR THE EXAMINATION OF CERTAIN OFFICERS OF
THE NAVY AND TO REGULATE PROMOTIONS AND RETIRE-
MENTS THEREIN.**

SIR: I have the honor to forward herewith copy of the Department's letter of December 5, 1905, transmitting the draft of a bill "to provide for the examination of certain officers of the Navy, and to regulate promotions and retirements therein." This bill was introduced in the Senate on December 6, 1905 (S. 698, Fifty-ninth Congress, first session), but was never finally acted upon by Congress.

Concurring in the remarks made by my predecessor in the inclosed letter, I have to request that the matter be again brought to the attention of Congress at the present session, in order that the Department may be relieved of the delay and confusion resulting from the present system of examinations. Attention is particularly invited to the fact that the adoption of sections 1 to 3 of the bill in question would operate to greatly simplify the methods now in force for examining officers of the Navy, without entailing any additional expense.

The remainder of the bill (sections 4 to 6) is intended to give to officers of the Navy certain benefits that have been enjoyed by officers of the Army and Marine Corps for a number of years, but which have heretofore been, for no apparent reason, withheld from the Navy.

Very respectfully,

V. H. METCALF,
Secretary.

HON. GEORGE EDMUND FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives,*

NAVY DEPARTMENT,
Washington, December 5, 1905.

SIR: I have the honor to transmit herewith, for the consideration of the committee, a draft of a bill to provide for the examination of certain officers of the Navy and to regulate promotions and retirements therein.

The procedure prescribed by the laws relating to naval examining and retiring boards is cumbersome and slow. Under the present system an officer must, as a preliminary to promotion, pass an examination before two boards, one of which examines him as to his mental, moral, and professional qualifications, and the other as to his phys-

ical fitness, to perform the duties of the grade to which he seeks advancement. (Secs. 1496 and 1493, Rev. Stats.) Should the board of surgeons making the physical examination report adversely, the candidate is in ordinary course ordered to appear before a retiring board (sec. 1448, Rev. Stats.), where he undergoes a second physical examination, the object of which is to determine whether he is incapacitated for active service, and if so, whether his incapacity is the result of an incident of the service. The facts and evidence passed upon by the previous board must be again gone over by the retiring board, and the work of examination being thus duplicated, delay and loss to the service result. There is, furthermore, always the possibility, and it not infrequently happens, that the medical and the retiring board may reach opposite conclusions, in which case further delay and confusion result. The measure herewith presented provides, in sections 1 to 3, for the organization of a single board to act as an examining board, but authorized, whenever it appears that an officer is not qualified for promotion, to proceed at once to determine all questions connected with his retirement. This simplified system was authorized for the Army and the Marine Corps by the acts of October 1, 1890 (26 Stat., 562), and July 28, 1892 (27 Stat., 321), respectively. Its extension to the Navy, besides operating advantageously to the Department and the service generally, would entail no additional expense.

Sections 4, 5, and 6 of the bill provide, respectively, for retirement in the next higher grade upon failure to pass the physical examination for promotion, where such failure is due to disability contracted in the line of duty; for retirement after thirty years' service, and that officers of the Navy retired in accordance with the act shall receive in all respects the same benefits as are or may be provided for officers of the Army retired in like manner. The privileges conferred by these sections have been enjoyed by officers of the Army and the Marine Corps for a number of years, and no good reason is perceived for withholding them from the Navy.

Very respectfully,

CHARLES J. BONAPARTE,
Secretary.

HON. GEORGE EDMUND FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives.*

[S. 698. Fifty-ninth Congress, first session.]

A BILL To provide for the examination of certain officers of the Navy, and to regulate promotions and retirements therein.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That hereafter boards organized in pursuance of existing law for the examination of officers for promotion in the Navy shall consist of five members, three of whom, when practicable, shall be selected from the same corps as the candidate, and two from the Medical Corps of the Navy, and a recorder, the members other than those of the Medical Corps to be senior in rank to the officer to be examined; and such examination shall be made under the following heads: First, physical and mental qualifications; second, moral and professional qualifications.

SEC. 2. That the medical members of the board will each personally examine the candidate as to his physical and mental condition, and also the medical record as furnished by the Bureau of Medicine and Surgery, and certify to the board that such examination has been made, and that the candidate is or is not physically and mentally qualified for the efficient performance of all the duties of the next higher grade. Should the candidate be found by the full board to be disqualified for promotion, physically or mentally, or both, it will conclude the examination by reporting the cause or causes of the disability, or whether such disability was contracted in the line of duty; and for the purpose of this inquiry the proceedings of the board shall conform to those of a retiring board, and officers so found to be disqualified for promotion, physically or mentally, or both, will not be examined under the second head.

SEC. 3. That should the candidate be found by the full board to be mentally and physically qualified for promotion the examination shall proceed under the second head, the medical officers of the board being excused from further attendance upon the sessions thereof. The board shall report their recommendation of any officer for promotion in the following form:

"We hereby certify that-----has the physical, mental, moral, and professional qualifications to perform efficiently all the duties of the grade to which he is to be promoted, and recommend him for promotion."

SEC. 4. That when an officer of the Navy has been thirty years in the service he may, upon his own application, in the discretion of the President, be retired from active service and placed on the retired list.

SEC. 5. That should an officer of the Navy fail in his physical examination for promotion and be found incapacitated for service by reason of physical disability contracted in the line of duty he shall be retired with the rank to which his seniority entitled him to be promoted.

SEC. 6. That officers of the Navy retired from active service in accordance with the provisions of this act shall receive in all respects the same benefits as are or may be provided by or in pursuance of law for officers of the Army similarly retired. And no act now in force shall be so construed as to limit or restrict the retirement of officers as herein provided for.

[No. 65.]

NAVY DEPARTMENT,
Washington, January 15, 1908.

**TO AUTHORIZE THE SECRETARY TO CARE FOR GIFTS PRESENTED
TO VESSELS—DEPARTMENT LETTER.**

Sir: I have the honor to inclose herewith an extract from my annual report for 1907, giving a list of silver services and other articles which have at various times been presented to vessels of the Navy, principally by cities and States after which the vessels were named. As will be seen from this list, such articles are in many cases of considerable value, the total cost reaching nearly \$250,000.

These gifts have been accepted in pursuance of a long-standing custom, but it does not appear that the practice has ever received express legislative sanction. The Department therefore recommends that some provision be made by Congress authorizing the acceptance of similar gifts in the future and providing for their care and preservation. Such action is considered particularly desirable in view of questions that might arise as to the status of these articles in case of their loss, by theft or otherwise. The articles for the government of the Navy provide for the punishment of any person in the naval service "who steals, embezzles, knowingly and willfully misappropriates, applies to his own use or benefit, or wrongfully and knowingly sells or disposes of any ordnance, arms, equipments, ammunition, clothing, subsistence stores, money, or other *property of the United States*." The phrase "property of the United States" has been heretofore given a strict construction in the case of property that had not a well-defined status.

It is suggested that the desired object might be attained by the insertion of a suitable provision in the naval appropriation bill under the heading "Equipment of vessels." The draft of a clause which it is thought would be sufficient for this purpose is inclosed.

Very respectfully,

V. H. METCALF, *Secretary.*

HON. GEORGE EDMUND FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives.*

APPENDIX A.

Presentation of articles from States, municipalities, etc., to vessels of the United States Navy.

Vessel.	Nature of gift.	Cost.	Presented by—
Albany.....	Silver service.....	\$5,363.00	City of Albany.
Annapolis.....	Punch bowl, etc.....	330.00	City of Annapolis.
Atlanta.....	Punch bowl.....	578.88	City of Atlanta.
Alabama.....	Silver service.....	3,365.00	State of Alabama.
Arkansas.....	Loving cup.....	30.00	City of Natchez.
Buffalo.....	Battalion colors.....	716.00	No record.
Brooklyn.....	Silver service, etc.....	9,156.00	City of Brooklyn.
Baltimore.....	Silver service.....	2,725.55	City of Baltimore.
Bailey.....	Loving cup.....	500.00	Descendants Admiral Bailey.
Chicago.....	Silver service.....	2,500.00	City of Chicago.
Concord.....	Bronze statue.....	1,000.00	City of Concord.
Cincinnati.....	Silver service, etc.....	5,100.00	City of Cincinnati.
Columbia.....	Pitcher, etc.....	95.00	No record.
Castine.....	Punch bowl.....	300.00	Do.
Charleston.....	Silver service.....	3,000.75	Do.
Chattanooga.....	Library books.....	40.00	Do.
Connecticut.....	Silver service.....	5,844.00	State of Connecticut.
Detroit.....	Punch bowl.....	2,500.00	No record.
Denver.....	Silver service.....	2,500.00	City of Denver.
Des Moines.....	Loving cup.....	35.00	City of Natchez.
Galveston.....	Silver service.....	2,000.00	City of Galveston.
Georgia.....	Silver service, etc.....	10,500.00	State of Georgia.
Helena.....	Punch bowl.....	2,500.00	City of Helena.
Indiana.....	Silver service.....	9,503.95	Citizens of Indiana.
Iowa.....	Silver service, etc.....	5,000.00	State of Iowa.
Illinois.....	Silver service.....	5,000.00	State of Illinois.
Kentucky.....	do.....	6,000.00	State of Kentucky.
Kearsarge.....	Bronze tablet.....		State of New Hampshire.
Kansas.....	Library books.....		Kansas Society.
Lancaster.....	Piano, etc.....	215.00	No record.
Marblehead.....	Battalion colors.....	68.00	Do.
Maryland.....	Silver service.....	5,000.00	Citizens of Maryland.
Montgomery.....	Punch bowl, etc.....	1,000.00	City of Montgomery.
Marietta.....	Silver service.....	1,125.25	City of Marietta.
Machias.....	Punch bowl.....	300.00	City of Machias.
Monterey.....	Battalion colors.....	100.00	City of Monterey.
Massachusetts.....	Punch bowl, etc.....	214.00	State of Massachusetts.
Maine (Old).....	Silver service.....	1,425.00	No record.
Maine (New).....	do.....	2,700.00	State of Maine.
Minneapolis.....	do.....	3,900.00	City of Minneapolis.
Missouri.....	Silver service, etc.....	10,000.00	State of Missouri.
Mayflower.....	Punch bowl.....	2,000.00	Russian Peace Commission.
New York.....	Silver service, etc.....	14,855.00	City of New York.
New Orleans.....	Punch bowl, etc.....	4,460.00	City of New Orleans.
Nashville.....	do.....	3,165.00	City of Nashville.
Newark.....	Bell, etc.....	167.00	City of Newark.
Newport.....	Silver service.....	1,800.00	No record.
Olympia.....	do.....	8,750.00	State of Washington and city of Olympia.
Oregon.....	do.....	4,864.00	State of Oregon.
Ohio.....	do.....	7,000.00	State of Ohio.
Princeton.....	Punch bowl, etc.....	1,219.00	Alumni Princeton University.
Philadelphia.....	Clock, etc.....	4,256.00	No record.
Pennsylvania.....	Silver service, etc.....	26,500.00	State of Pennsylvania.
Raleigh.....	Silver service.....	604.00	City of Wilmington.
Rhode Island.....	Silver service, etc.....	10,702.00	State of Rhode Island.
San Francisco.....	Silver service.....	4,786.00	City of San Francisco.
South Dakota.....	do.....	5,000.00	State of South Dakota.
Sylph.....	Loving cup.....	45.00	No record.
Topeka.....	Organ.....	50.00	Women Army and Navy League.
Texas.....	Silver service.....	3,847.00	State of Texas.
Tacoma.....	do.....	3,465.00	City of Tacoma.
Tennessee.....	do.....	5,000.00	State of Tennessee.
Vermont.....	do.....	3,721.00	State of Vermont.
Virginia.....	do.....	5,000.00	State of Virginia.
Wheeling.....	Punch bowl, etc.....	900.00	State of West Virginia.
Wilmington.....	do.....	1,750.00	City of Wilmington.
Wisconsin.....	Silver service.....	7,100.00	State of Wisconsin.
Washington.....	do.....	5,000.00	No record.
Total.....		248,136.38	

The Secretary of the Navy is hereby authorized to accept and care for such gifts in the form of silver, colors, books, or other articles of equipment or furniture as, in accordance with custom, may be presented to vessels of the Navy by States, municipalities, or otherwise. The necessary expense incident to the care and preservation of gifts of this character, which have been or may hereafter be accepted shall be defrayed from the appropriation "Equipment of vessels."

[No. 66.]

TABLES ON NAVAL PERSONNEL.

**NAVY DEPARTMENT,
Washington, February 27, 1908.**

SIR: Referring to the tables accompanying the report of the Personnel Board of November 19, 1906, the inclosed tables have been drawn up showing the number of officers in each grade as calculated under existing law and under the provisions of Senate bill No. 8266 (59th Cong., 2d sess.) on July 1 of each year from 1908 to 1925, inclusive, and are based on 2,000 as the number of commissioned officers in the Navy instead of on 1,500, as allowed for in the computations in the report of the Personnel Board.

The Department requests that the tables accompanying the report of the Personnel Board be canceled and that the inclosed tables be substituted therefor.

Tables showing the average ages of officers of certain grades in the principal navies are inclosed herewith.

Very respectfully,

TRUMAN H. NEWBERRY,
Acting Secretary.

Hon. GEORGE E. FOSS,
*Chairman House Committee on Naval Affairs,
House of Representatives.*

**NAVY DEPARTMENT,
Washington, January 7, 1908.**

SIR: A board is hereby appointed, consisting of yourself as senior member, and of Pay Inspector John S. Carpenter, U. S. Navy, and Lieut. Commander Albert L. Key, U. S. Navy, as members, to convene at the Navy Department, Washington, D. C., at 10 a. m. Monday, January 13, 1908, to prepare tables, to be submitted to the Department as soon as practicable, similar to those appended to the Personnel Board's report, using the same method of comparison, the computations to be carried to June 30, 1925, and to include such changes in the Personnel Board's recommendations as are shown in Senate bill No. 8266, Fifty-ninth Congress, second session; to be afterwards submitted to the Bureau of Supplies and Accounts to make pay computations and determine the comparative cost.

To establish a basis on which to work, the board will be guided by the provisions of Senate bill No. 8266 and will consider it to be enacted into law May 1, 1908; that 3 vice-admirals are commissioned on June 1, 1908; and that an additional vice-admiral is commissioned July 1, 1909, 1911, and 1913, making a grade of 6 vice-admirals on July 1, 1913.

In applying the provisions of existing law, the board will consider that vacancies under the personnel act of 1899 are made in the several grades in the same proportion, to the nearest whole number, as have been made through its provisions during the nine years that this act has been in operation.

The board will base their computations on the Navy Register of July 1, 1907, and the annual percentage of casualties to be applied to each commissioned grade will be determined by the average casualties that have occurred in each commissioned grade during the nine years from January 1, 1899, to January 1, 1908; that is, for the nine years the personnel act has been in operation. This annual percentage of casualties for each commissioned grade will be calculated anew by the board. All vacancies, in whatever grade, except those due to age retirements and those due to the personnel act of 1899, will be counted as casualties. The board will consider that the present law increasing the number of appointments to the Naval Academy expires in 1912.

The board will also submit a table, the pay computations of which will afterwards be made by the Bureau of Supplies and Accounts, to show the cost, compared with existing law, if the officers, except lieutenant-commanders, eliminated from the seagoing list by the Personnel Board's plan were placed directly on the retired list with the rank and retired pay of the next higher grade. Lieutenant-commanders eliminated will be considered to be retired as lieutenant-commanders.

The members of the board have been directed to report to you for this duty.

Assemble the board at the time, date, and place specified, and submit a report in the premises to the Department.

This is in addition to your present duties.

Respectfully,

C. McR. WINSLOW,
Acting Chief of Bureau.

Prof. PHILIP R. ALGER, U. S. Navy,
Member Special Ordnance Board,
Navy Department, Washington, D. C.
(Bureau of Ordnance.)

NAVY DEPARTMENT,
Washington, D. C., February 19, 1908.

SIR: 1. The board appointed by the Department's order of January 7, 1908, has the honor to report as follows:

2. The average casualties which have occurred in the various commissioned grades during the nine years from January 1, 1899, to January 1, 1908, were found to be:

	Per cent.
Rear-admirals.....	10
Captains.....	9
Commanders.....	2
Lieutenant-commanders.....	1½
Lieutenants.....	3
Lieutenants (junior grade).....	4
Ensigns.....	3

While these percentages differ greatly in the different grades, the mean percentage is very nearly 3 per cent, the figure which has been used in previous calculations.

3. Vacancies caused by the personnel act of 1899 have been made in the grades of captain, commander, lieutenant-commander, and lieutenant, in the following proportions:

	Per cent.
Captain.....	15
Commander.....	21
Lieutenant-commander.....	55
Lieutenant.....	9

4. Using the foregoing percentages, the accompanying tables were drawn up, showing the number of officers in each grade, as calculated under existing law and under the provisions of Senate bill No. 8266, on July 1 of each year from 1908 to 1925, inclusive. As verbally directed, the plan of Senate bill No. 8266 was modified to make the number of commissioned officers 2,000 instead of 1,500. This accounts in part for the board's calculated cost of the Senate bill plan being materially greater than that given in the report of the Personnel Board.

5. On the completion of the calculated Navy lists they were turned over to the Bureau of Supplies and Accounts, where, under the direction of Pay Inspector Carpenter, the comparative costs of the two systems were calculated. These costs, stated in the form of "increases" and "decreases," are given in the inclosed tables.

The computations for the cost of the retired list are based on the theory that the Government virtually contracts to pay an officer, at the date he is placed upon the retired list, a fixed rate of pay for the remainder of his life. The probable length of life of each officer is taken from the American Mortality Tables for his age at the date of his retirement. Consequently, the cost of the retired lists given in the accompanying tables represents the ultimate cost and does not represent the specific annual appropriations. If the Government should pay an officer, at the date of his retirement, the lump sum that he will probably receive in monthly installments during his life, then the accompanying tables showing the cost of the retired lists would represent the annual appropriations necessary to pay the officers retired under each plan of promotion.

6. It is found that the cost of the active list under the Senate bill plan exceeds that under existing law by \$7,075,515 for the period of eighteen years considered. The cost of the retired list under existing law exceeds that under the Senate bill plan by \$15,235,968. The cost of the reserved list under Senate bill plan for the same period of eighteen years would be \$2,489,529, and the cost of retiring all the officers on that reserved list at the expiration of the eighteen-year period would be \$5,053,125. Consequently, comparing the total costs of the two systems for the period considered, there appears to be a balance of \$617,799 in favor of the Senate bill plan, in which the seagoing list is increased to 2,000 commissioned officers exclusive of flag-officers and those officers carried as additional numbers.

7. If the reserved list feature is eliminated from the Senate bill plan and all officers compulsorily removed from the active list under that plan are retired, the total cost for the eighteen-year period would be \$685,622 greater than under existing law.

8. The reason why the board's calculations show that the Senate bill plan without reserved list costs more than existing law, while the Senate bill plan with reserved list costs less than existing law, is that the percentages of casualties on the reserved list were taken to be the same as on the active list, which is undoubtedly excessive. The board, however, had no data upon which to base an estimate of the real rate of decrease of the reserved list due to casualties. As calculated the reserved list for the eighteen-year period costs \$12,590,554, and the retirement of the same officers instead of reserving them would cost \$13,893,975; but as a matter of fact the board is of opinion that this difference in favor of the reserved list system would not really occur and that doing away with the reserved list would probably be an economy in money.

9. The computations for a seagoing list of 1,500 commissioned officers, required by the original provisions of the Senate bill plan, show that the cost of the active list under existing law exceeds that of the seagoing list under the Senate bill plan by \$4,284,095. The cost of the reserved and retired lists under the Senate bill plan for the eighteen years considered is essentially the same for a seagoing list of 1,500 officers as for a list of 2,000 officers. Consequently, comparing the total costs of the two systems as calculated for the period considered, there is a balance of \$11,977,400 in favor of the Senate bill plan carrying a list of 1,530 commissioned officers, as against the plan of existing law, under which the number of commissioned officers on June 30, 1925, would be 2,060. This calculated balance, for the reason stated in paragraph 8, is undoubtedly somewhat excessive; but, on the other hand, under the Senate bill plan the officers are properly distributed in the various grades, while under existing law nearly 50 per cent would be in the grade of junior lieutenant.

Respectfully submitted.

PHILIP R. ALGER,
Professor of Mathematics, U. S. Navy,
Senior Member of Board.

J. S. CARPENTER,
Pay Inspector, U. S. Navy, Member.

A. S. KEY,
Lieutenant-Commander, U. S. Navy, Member.

THE SECRETARY OF THE NAVY.

NAVY DEPARTMENT,
Washington, February 20, 1908.

Average ages of officers of certain grades in the principal navies, obtained from latest sources of information.

Grade.	United States.	Japan.	Germany.	Great Britain.	France.
	<i>Years.</i>	<i>Years.</i>	<i>Years.</i>	<i>Years.</i>	<i>Years.</i>
Rear-admiral.....	60.7	50	53	55	58
Captain.....	58	45	47	47	55
Commander.....	51	41	42	39	47

Comparison of cost of active lists of existing law and board plan carrying 2,000 commissioned officers below flag rank.

MAY 1, 1908, TO JUNE 30, 1908.

	Existing law.		Board plan.		Increase.	Decrease.
	Number.	Age of senior.	Number.	Age of junior.		
Vice-admiral	0		0			
Rear-admiral (senior)	12	60	17	59	6,250	
Rear-admiral (junior)	11		14		3,000	
Captain	74	54	129	52	260	
Commander	121	45	105	42		10,666.66
Lieutenant-commander	211	35	177	34		19,833.33
Lieutenant	290	27	278	28		4,320.00
Lieutenant (junior grade)	0		212	25	58,800	
Ensign	212	25	104	24		27,720.00
Midshipman	305	23	200	23		16,625.00
Total	1,236		1,236		108,800	79,165.00
Difference					29,635	

JULY 1, 1908.

Vice-admiral	0		3	61	33,000	
Rear-admiral (senior)	12	60	18	59	45,000	
Rear-admiral (junior)	11		14		18,000	
Captain	84	55	127	50	193,500	
Commander	121	45	105	41		64,000
Lieutenant-commander	211	34	215	33		39,750
Lieutenant	328	27	284	27		95,040
Lieutenant (junior grade)	0		163	25	268,950	
Ensign	267	24	303	23	55,440	
Midshipman	394	22	195	22		189,050
Total	1,428		1,427		613,890	387,840
Difference					226,050	

JULY 1, 1909.

Vice-admiral	0		4	60	44,000	
Rear-admiral (senior)	13	60	17	57	30,000	
Rear-admiral (junior)	13		13			
Captain	78	53	129	47	229,500	
Commander	120	42	95	41		100,000
Lieutenant-commander	212	35	237	32	28,250	
Lieutenant	343	27	273	27		151,200
Lieutenant (junior grade)	0		202	25	333,300	
Ensign	396	24	384	23		18,480
Midshipman	364	22	175	22		179,550
Total	1,539		1,529		665,050	449,230
Difference					215,820	

JULY 1, 1910.

Vice-admiral	0		4	61	44,000	
Rear-admiral (senior)	12	60	16	56	30,000	
Rear-admiral (junior)	12		12			
Captain	76	53	122	44	207,000	
Commander	120	42	95	38		100,000
Lieutenant-commander	211	34	257	32	96,750	
Lieutenant	354	28	303	27		110,160
Lieutenant (junior grade)	51	27	286	25	387,750	
Ensign	468	24	355	23		174,020
Midshipman	335	22	165	22		161,500
Total	1,539		1,615		765,580	545,680
Difference					219,820	

Comparison of cost of active lists of existing law and board plan carrying 2,000 commissioned officers below flag rank—Continued.

JULY 1, 1911.

	Existing law.		Board plan.		Increase.	Decrease.
	Number.	Age of senior.	Number.	Age of junior.		
Vice-admiral.....	0		5	59	55,000	
Rear-admiral (senior).....	12	59	16	54	30,000	
Rear-admiral (junior).....	13		13			
Captain.....	77	53	111	41	153,000	
Commander.....	115	41	95	37		80,000
Lieutenant-commander.....	209	34	273	31	208,000	
Lieutenant.....	352	28	243	28		235,440
Lieutenant (junior grade).....	104	27	455	25	579,150	
Ensign.....	523	24	325	23		304,920
Midshipman.....	335	22	175	22		152,000
Total.....	1,740		1,711		1,025,150	772,360
Difference.....					252,790	

JULY 1, 1912.

Vice-admiral.....	0		5	60	55,000	
Rear-admiral (senior).....	10	60	16	53	45,000	
Rear-admiral (junior).....	10		12		12,000	
Captain.....	77	54	112	43	157,500	
Commander.....	104	41	95	40		76,000
Lieutenant-commander.....	211	35	203	32	213,750	
Lieutenant.....	350	29	288	28		133,920
Lieutenant (junior grade).....	234	27	508	25	417,000	
Ensign.....	487	24	325	23		249,480
Midshipman.....	345	22	175	22		161,500
Total.....	1,838		1,829		900,250	620,900
Difference.....					279,950	

JULY 1, 1913.

Vice-admiral.....	0		6	58	66,000	
Rear-admiral (senior).....	10	59	19	55	67,500	
Rear-admiral (junior).....	10		14		24,000	
Captain.....	76	51	104	43	126,000	
Commander.....	113	42	96	38		68,000
Lieutenant-commander.....	211	35	305	32	252,750	
Lieutenant.....	350	29	418	28	146,880	
Lieutenant (junior grade).....	351	27	471	25	145,350	
Ensign.....	469	24	294	23		269,500
Midshipman.....	345	22	175	22		161,500
Total.....	1,935		1,902		828,440	499,000
Difference.....					329,480	

JULY 1, 1914.

Vice-admiral.....	0		6	58	66,000	
Rear-admiral (senior).....	9	60	18	53	67,500	
Rear-admiral (junior).....	9		14		30,000	
Captain.....	76	50	106	42	135,000	
Commander.....	114	43	100	39		56,000
Lieutenant-commander.....	210	35	317	32	295,250	
Lieutenant.....	350	30	527	28	382,320	
Lieutenant (junior grade).....	448	27	453	25		55,350
Ensign.....	470	24	255	23		331,100
Midshipman.....	345	22	175	22		161,500
Total.....	2,029		1,971		97,607	603,950
Difference.....					372,129	

Comparison of cost of active lists of existing law and board plan carrying 2,000 commissioned officers below flag rank—Continued.

JULY 1, 1915.

	Existing law.		Board plan.		Increase.	Decrease.
	Number.	Age of senior.	Number.	Age of junior.		
Vice-admiral	0		6	58	66,000	
Rear-admiral (senior)	9	60	19	53	75,000	
Rear-admiral (junior)	9		15		36,000	
Captain	75	48	108	42	148,500	
Commander	118	43	105	39		52,000
Lieutenant-commander	205	34	330	32	355,000	
Lieutenant	350	31	603	28	546,480	
Lieutenant (junior grade)	528	27	415	25		265,650
Ensign	480	24	268	23		326,480
Midshipman	345	22	175	22		161,500
Total	2,119		2,044		122,698	805,630
Difference					421,350	

JULY 1, 1916.

Vice-admiral	0		6	58	66,000	
Rear-admiral (senior)	9	60	20	55	82,500	
Rear-admiral (junior)	9		15		36,000	
Captain	75	48	113	42	171,000	
Commander	118	42	109	39		36,000
Lieutenant-commander	205	36	341	33	300,750	
Lieutenant	350	33	684	28	658,440	
Lieutenant (junior grade)	616	27	387	25		470,250
Ensign	480	24	267	22		328,020
Midshipman	345	22	175	21		161,500
Total	2,207		2,117		1,404,690	995,770
Difference					408,920	

JULY 1, 1917.

Vice admiral	0		6	58	66,000	
Rear admiral (senior)	11	58	20	54	67,500	
Rear-admiral (junior)	11		15		24,000	
Captain	71	48	117	44	207,000	
Commander	117	42	114	40		12,000
Lieutenant-commander	203	36	354	33	440,000	
Lieutenant	350	32	709	28	842,040	
Lieutenant (junior grade)	701	27	364	25		661,200
Ensign	480	24	255	22		346,500
Midshipman	345	22	175	21		161,500
Total	2,289		2,180		1,646,540	1,181,200
Difference					465,340	

JULY 1, 1918.

Vice-admiral	0		6	58	66,000	
Rear-admiral (senior)	11	50	15	53	30,000	
Rear-admiral (junior)	11		12		6,000	
Captain	71	48	123	44	234,000	
Commander	117	42	120	40	12,000	
Lieutenant-commander	203	36	360	34	459,500	
Lieutenant	350	33	823	28	958,680	
Lieutenant (junior grade)	782	27	363	24		808,650
Ensign	480	24	224	22		394,240
Midshipman	280	22	90	21		161,500
Total	2,285		2,136		1,766,180	1,364,390
Difference					401,790	

Comparison of cost of active lists of existing law and board plan carrying 2,000 commissioned officers below flag rank—Continued.

JULY 1, 1919.

	Existing law.		Board plan.		Increase.	Decrease.
	Number.	Age of senior.	Number.	Age of junior.		
Vice-admiral.....	0		6	58	66,000	
Rear-admiral (senior).....	10		14		30,000	
Rear-admiral (junior).....	11	56	11	54		
Captain.....	71	48	129	44	261,000	
Commander.....	118	38	124	40	24,000	
Lieutenant-commander.....	202	37	360	34	513,500	
Lieutenant.....	350	33	884	28	1,090,440	
Lieutenant (junior grade).....	858	27	363	24		945,450
Ensign.....	490	24	153	22		503,580
Midshipman.....	177	22	90	21		82,650
Total.....	2,276		2,134		1,984,940	1,531,680
Difference.....					453,260	

JULY 1, 1920.

Vice-admiral.....	0		6	58	\$66,000	
Rear-admiral (senior).....	10		14		30,000	
Rear-admiral (junior).....	9	55	11	53	12,000	
Captain.....	72	49	132	44	270,000	
Commander.....	117	42	129	40	48,000	
Lieutenant-commander.....	201	37	360	35	466,500	
Lieutenant.....	350	33	964	28	1,241,640	
Lieutenant (junior grade).....	931	27	322	25		\$1,144,500
Ensign.....	399	24	114	22		438,900
Midshipman.....	177	22	90	21		82,650
Total.....	2,266		2,132		2,134,140	1,666,050
Difference.....					468,090	

JULY 1, 1921.

Vice-admiral.....	0		6	58	\$66,000	
Rear-admiral (senior).....	9		14		37,500	
Rear-admiral (junior).....	9	56	10	54	6,000	
Captain.....	74	50	138	45	288,000	
Commander.....	115	43	133	41	72,000	
Lieutenant-commander.....	201	38	360	36	556,500	
Lieutenant.....	350	34	1,012	27	1,306,920	
Lieutenant (junior grade).....	1,004	27	256	25		\$1,384,800
Ensign.....	320	24	112	22		320,320
Midshipman.....	177	22	90	21		82,650
Total.....	2,259		2,131		2,392,920	1,787,770
Difference.....					605,150	

JULY 1, 1922.

Vice-admiral.....	0		6	58	\$66,000	
Rear-admiral (senior).....	9		14		37,500	
Rear-admiral (junior).....	9	57	10	53	6,000	
Captain.....	75	48	143	46	306,000	
Commander.....	114	43	138	42	96,000	
Lieutenant-commander.....	201	38	360	37	556,500	
Lieutenant.....	350	34	1,067	27	1,485,720	
Lieutenant (junior grade).....	1,074	27	193	25		\$1,614,750
Ensign.....	243	24	110	22		204,820
Midshipman.....	177	22	90	21		82,650
Total.....	2,252		2,131		2,553,720	1,902,220
Difference.....					651,500	

Comparison of cost of active lists of existing law and board plan carrying 2,000 commissioned officers below flag rank—Continued.

JULY 1, 1923.

	Existing law.		Board plan.		Increase.	Decrease.
	Number.	Age of senior.	Number.	Age of junior.		
Vice-admiral.....	0		6	58	66,000	
Rear-admiral (senior).....	9	56	14	56	37,500	
Rear-admiral (junior).....	9		11		12,000	
Captain.....	74	49	146	46	324,000	
Commander.....	114	45	143	42	116,000	
Lieutenant-commander.....	201	39	359	37	553,000	
Lieutenant.....	350	35	1,060	27	1,470,500	
Lieutenant (junior grade).....	1,067	27	156	25		1,663,200
Ensign.....	243	24	141	22		157,080
Midshipmen.....	177	22	90	21		82,650
Total.....	2,244		2,126		2,579,100	1,902,930
Difference.....					676,170	

JULY 1, 1924.

Vice-admiral.....	0		6	58	66,000	
Rear-admiral (senior).....	9	56	14	55	37,500	
Rear-admiral (junior).....	9		10		6,000	
Captain.....	75	48	148	46	328,500	
Commander.....	113	44	141	43	112,000	
Lieutenant-commander.....	201	40	359	38	553,000	
Lieutenant.....	350	36	1,031	27	1,344,960	
Lieutenant (junior grade).....	1,060	27	153	25		1,655,550
Ensign.....	243	24	171	22		110,880
Midshipmen.....	177	22	90	21		82,650
Total.....	2,237		2,123		2,447,960	1,849,080
Difference.....					598,880	

JULY 1, 1925.

Vice-admiral.....	0		6	58	66,000	
Rear-admiral (senior).....	9	56	14	55	37,500	
Rear-admiral (junior).....	9		10		6,000	
Captain.....	75	48	148	46	328,500	
Commander.....	113	44	141	43	112,000	
Lieutenant-commander.....	201	40	357	38	546,000	
Lieutenant.....	350	36	998	27	1,273,680	
Lieutenant (junior grade).....	1,054	27	182	25		1,596,900
Ensign.....	243	24	171	22		110,880
Midshipmen.....	177	22	90	21		82,650
Total.....	2,231		2,117		2,369,680	1,790,430
Difference.....					579,250	

RECAPITULATION.

	Increase.		Increase.
May 1, 1908, to June 30, 1908.....	20,635	July 1, 1918, to June 30, 1919.....	401,790
July 1, 1908, to June 30, 1909.....	226,650	July 1, 1919, to June 30, 1920.....	453,260
July 1, 1909, to June 30, 1910.....	215,820	July 1, 1920, to June 30, 1921.....	468,060
July 1, 1910, to June 30, 1911.....	219,820	July 1, 1921, to June 30, 1922.....	605,150
July 1, 1911, to June 30, 1912.....	232,700	July 1, 1922, to June 30, 1923.....	651,500
July 1, 1912, to June 30, 1913.....	279,350	July 1, 1923, to June 30, 1924.....	676,170
July 1, 1913, to June 30, 1914.....	329,480	July 1, 1924, to June 30, 1925.....	568,880
July 1, 1914, to June 30, 1915.....	372,120		
July 1, 1915, to June 30, 1916.....	421,350	Total increase from May 1, 1908,	
July 1, 1916, to June 30, 1917.....	468,420	to June 30, 1925.....	7,075,515
July 1, 1917, to June 30, 1918.....	465,340		

Comparison of cost of active lists, existing law, and board plan for active list of 1,500 commissioned officers below flag rank.

RECAPITULATION.

	Increase.	Decrease.
May 1, 1908, to June 30, 1908.....	\$29,635	
July 1, 1908, to June 30, 1909.....	226,056	
July 1, 1909, to June 30, 1910.....	215,820	
July 1, 1910, to June 30, 1911.....	219,820	
July 1, 1911, to June 30, 1912.....	252,790	
July 1, 1912, to June 30, 1913.....	127,930	
July 1, 1913, to June 30, 1914.....	48,390	
July 1, 1914, to June 30, 1915.....		\$47,600
July 1, 1915, to June 30, 1916.....		136,270
July 1, 1916, to June 30, 1917.....		285,960
July 1, 1917, to June 30, 1918.....		424,700
July 1, 1918, to June 30, 1919.....		622,250
July 1, 1919, to June 30, 1920.....		619,670
July 1, 1920, to June 30, 1921.....		686,800
July 1, 1921, to June 30, 1922.....		620,050
July 1, 1922, to June 30, 1923.....		626,140
July 1, 1923, to June 30, 1924.....		631,230
July 1, 1924, to June 30, 1925.....		703,800
Total.....	1,120,435	5,404,530
Decreased cost of board plan.....		1,120,435
Active list, 1,530.		4,284,095

[Those retired during a fiscal year counted as retired on the last day of the year--June 30.]

JULY 1, 1908.

Existing law.		Board plan.	
	<i>Age.</i>		<i>%</i>
Rear-admiral (senior)	62	\$708,187.50	11×12.0×R. P.
Rear-admiral (junior)	58	292,200.00	4×12.0×R. P.
Commodore	54	115,400.00	1×15.4×R. P.
Captain	50	63,925.00	1×15.4×R. P.
Lieutenant	46	144,075.00	2×20.0×R. P.
Commander	41	330,000.00	4×27.5×R. P.
Total.....		1,564,987.50	
Decrease.....			
			1,030,387.50
			534,600.00

JULY 1, 1909.

	62	10×12.9×R. P.	\$725,625.00	Rear-admiral (senior)	62	8×12.9×R. P.	\$580,500.00
Rear-admiral (senior)	62	2×12.9×R. P.	116,100.00				
Rear-admiral (junior)	62	2×12.9×R. P.	132,925.00				
Commodore	57	2×16.1×R. P.	131,625.00				
Captain	52	2×19.5×R. P.	520,200.00				
Commander	39	6×28.9×R. P.	79,425.00				
Lieutenant-Commander	30	1×35.3×R. P.					
Total			1,705,800.00				680,500.00
Decrease							1,125,300.00

JULY 1, 1910.

[illegible]

Cost of officers retired—Continued.

JULY 1, 1911.

Existing law.		Board plan.	
	<i>Age.</i>		<i>Age.</i>
Rear-admiral (senior)	7×12.9×R. P.	Vice-admiral	2×11.7×R. P.
Rear-admiral (junior)	1×12.9×R. P.	Rear-admiral (senior)	7×12.9×R. P.
Commodore	2×16.7×R. P.	Rear-admiral (junior)	62
Captain	2×22.4×R. P.	Rear-admiral (junior)	62
Commander	38	Rear-admiral (junior)	58
Lieutenant-commander	6×29.6×R. P.		
	1×35.3×R. P.		
Total	1,467,187.50		
Increase	64,150.00		
			1,521,337.50

JULY 1, 1912.

Rear-admiral (senior)	62	11×12.9×R. P.	\$798,187.50	Vice-admiral	64	1×11.7×R. P.	\$96,525.00
Rear-admiral (junior)	52	1×12.9×R. P.	68,050.00	Rear-admiral (senior)	62	6×12.9×R. P.	362,812.50
Commodore	55	2×17.4×R. P.	143,550.00	Rear-admiral (junior)	62	1×12.9×R. P.	58,050.00
Captain	46	2×23.8×R. P.	180,650.00	Rear-admiral (junior)	56	14×16.7×R. P.	1,052,100.00
Commander	38	6×29.6×R. P.	532,800.00				
Lieutenant-commander	30	1×35.3×R. P.	79,425.00				
Total			1,772,662.50				1,599,487.50
Decrease							203,175.00

JULY 1, 1918.

[illegible]

JULY 1, 1914.

Rear-admiral (senior).....	62	5X129XR. P.....	\$302,812.50	Vice-admiral.....	64	1X11.7XR. P.....	\$96,626.00
Commodore.....	55	3X17.4XR. P.....	216,326.00	Rear-admiral (senior).....	62	5X12.9XR. P.....	362,812.50
Captain.....	46	4X24.5XR. P.....	330,750.00				
Commander.....	38	8X29.8XR. P.....	710,400.00				
Lieutenant-commander.....	31	1X34.6XR. P.....	77,860.00				
Total.....			1,687,137.50				469,337.50
Decrease.....							1,217,800.00

JULY 1, 1915.

Rear-admiral (senior).....	62	4X129XR. P.....	\$290,250.00	Vice-admiral.....	64	1X11.7XR. P.....	\$96,626.00
Rear-admiral (junior).....	62	3X12.9XR. P.....	116,100.00	Rear-admiral (senior).....	62	1X12.9XR. P.....	72,852.50
Commodore.....	55	3X17.4XR. P.....	143,550.00	Rear-admiral (junior).....	56	11X16.7XR. P.....	826,650.00
Captain.....	46	3X24.5XR. P.....	246,062.50				
Commander.....	38	7X29.8XR. P.....	621,600.00				
Lieutenant-commander.....	32	1X33.9XR. P.....	76,275.00				
Total.....			1,485,837.50				995,737.50
Decrease.....							500,100.00

Cost of officers retired—Continued.

JULY 1, 1916.

Existing law.		Board plan.	
	Age.		Age.
Rear-admiral (senior).....	62	Rear-admiral (senior).....	62
Rear-admiral (junior).....	62	Rear-admiral (junior).....	55
Commodore.....	56		
Captain.....	45		
Commander.....	39		
Lieutenant-commander.....	33		
Total.....			
Decrease.....			

JULY 1, 1917.

Rear-admiral (senior).....	62	Vice-admiral.....	64
Rear-admiral (junior).....	62	Rear-admiral (senior).....	62
Commodore.....	53		
Captain.....	45		
Commander.....	39		
Total.....			
Decrease.....			

JULY 1, 1918.

Rear-admiral (senior).....	62	Vice-admiral.....	64
Rear-admiral (junior).....	62	Rear-admiral (senior).....	62
Commodore.....	52		
Captain.....	46		
Commander.....	40		
Total.....			
Decrease.....			

JULY 1, 1919.

Rear-admiral (senior).....	62	4X12.9XR. P	\$290,250.00	Vice-admiral.....	64	1X11.7XR. P	\$90,525.00
Rear-admiral (junior).....	62	1X12.9XR. P	58,050.00	Rear-admiral (senior).....	62	3X12.9XR. P	217,687.50
Commodore.....	62	2X19.5XR. P	160,875.00				
Captain.....	45	3X24.5XR. P	248,062.50				
Commander.....	39	8X28.9XR. P	663,800.00				
Lieutenant-commander.....	34	2X32.5XR. P	158,437.50				
Total.....			1,609,275.00				314,212.50
Decrease.....							1,295,062.50

JULY 1, 1920.

Rear-admiral (senior).....	62	7X12.9XR. P	\$507,937.50	Vice-admiral.....	64	1X11.7XR. P	\$90,525.00
Rear-admiral (junior).....	62	2X12.9XR. P	116,100.00	Rear-admiral (senior).....	62	3X12.9XR. P	217,687.50
Commodore.....	51	2X20.2XR. P	166,650.00	Rear-admiral (junior).....	54	9X18.1XR. P	733,050.00
Captain.....	45	3X24.5XR. P	248,062.50				
Commander.....	39	6X28.9XR. P	520,200.00				
Lieutenant-commander.....	35	1X31.8XR. P	77,512.50				
Total.....			1,636,462.50				1,047,262.50
Decrease.....							

JULY 1, 1921.

Rear-admiral (senior).....	62	4X12.9XR. P	\$290,250.00	Vice-admiral.....	64	1X11.7XR. P	\$90,525.00
Rear-admiral (junior).....	62	1X12.9XR. P	58,050.00	Rear-admiral (senior).....	62	2X12.9XR. P	146,125.00
Commodore.....	51	2X20.2XR. P	166,650.00				
Captain.....	45	3X24.5XR. P	248,062.50				
Commander.....	40	8X28.2XR. P	676,800.00				
Lieutenant-commander.....	35	2X31.1XR. P	151,612.50				
Total.....			1,591,425.00				241,650.00
Decrease.....							1,349,775.00

Cost of officers retired—Continued.

JULY 1, 1922.

Existing law.		Board plan.	
	Age.		Age.
Rear-admiral (senior).....	62	5×12.9×R. P.	64
Commodore.....	51	2×20.2×R. P.	62
Captain.....	46	3×24.5×R. P.	
Commander.....	40	8×26.2×R. P.	
Lieutenant-commander.....	36	1×31.1×R. P.	
Total.....			
Decrease.....			

JULY 1, 1923.

Rear-admiral (senior).....	62	1×12.9×R. P.		
Commodore.....	51	3×20.2×R. P.		
Captain.....	46	4×24.5×R. P.		
Commander.....	42	9×26.7×R. P.		
Lieutenant-commander.....	37	2×30.4×R. P.		
Total.....				
Decrease.....				

NONE.

JULY 1, 1924.

Rear-admiral (senior).....	62	1×12.9×R. P.		
Commodore.....	51	3×20.2×R. P.		
Captain.....	46	4×23.8×R. P.		
Commander.....	41	9×27.5×R. P.		
Lieutenant-commander.....	37	2×30.4×R. P.		
Total.....				
Decrease.....				

Grand total decrease, \$15,235,968.75.
70 lieutenant-commanders (age 41) 70×27.5×R. P., \$6,053,125.

Cost of reserve list.

Fiscal year.

1907-8. None.

1908-9. Rear-admiral (senior) 3 × shore pay and allowances.....	\$27,516.96	
Rear-admiral (junior) 1 × shore pay and allowances.....	6,995.84	
Captain 15 × shore pay and allowances.....	87,290.40	\$121,803.20
1909-10. Rear-admiral (senior) 6 × shore pay and allowances.....	55,033.92	
Rear-admiral (junior) 2 × shore pay and allowances.....	13,991.92	
Captain 32 × shore pay and allowances.....	186,219.52	255,245.12
1910-11. Rear-admiral (senior) 6 × shore pay and allowances.....	55,033.92	
Rear-admiral (junior) 2 × shore pay and allowances.....	13,991.68	
Captain 47 × shore pay and allowances.....	273,509.92	342,535.52
1911-12. Rear-admiral (senior) 6 × shore pay and allowances.....	55,033.92	
Rear-admiral (junior) shore pay and allowances..	13,991.68	
Captain shore pay and allowances.....	279,329.28	348,354.88
1912-13. Rear-admiral (senior) 3 × shore pay and allowances.....	27,516.96	
Rear-admiral (junior) 1 × shore pay and allowances.....	6,995.84	
Captain 30 × shore pay and allowances.....	174,580.80	209,093.60
1913-14. Captain 28 × shore pay and allowances.....		162,942.08
1914-15. Captain 25 × shore pay and allowances.....		145,484.00
1915-16. Captain 27 × shore pay and allowances.....		157,122.72
1916-17. Captain 14 × shore pay and allowances.....		81,471.04
1917-18. Captain 12 × shore pay and allowances.....		69,832.32
1918-19. Captain 11 × shore pay and allowances.....		64,012.96
1919-20. Captain 10 × shore pay and allowances.....		58,193.60
1920-21. None.		
1921-22. None.		
1922-23. None.		
1923-24. Lieutenant-commander 36 (age 40 and 41).....		160,790.40
1924-June 30, 1925. Lieutenant-commander 70 (age 41).....		312,648.00
Grand total.....		2,489,529.44

BOARD PLAN.

Cost of placing officers eliminated directly on the retired list instead of reserved list.

12 rear-admirals (senior) (age 60) 12 × 14.1 × R. P.....	\$951,750.00
4 rear-admirals (junior) (age 60) 4 × 14.1 × R. P.....	253,800.00
83 rear-admirals (junior) (age 51.5) 83 × 19.9 × R. P.....	7,432,650.0
71 lieutenant-commanders (age 41) 71 × 28.2 × R. P.....	5,255,775.00
Total.....	13,893,975.00

[No. 67.]

**FOR THE RELIEF OF LIEUT. COMMANDER JEROME E. MORSE—
DEPARTMENT LETTER.**

**NAVY DEPARTMENT,
Washington, February 24, 1908.**

SIR: The receipt is acknowledged of bills, H. R. 5288 and H. R. 4151, for the relief of Lieut. Commander Jerome E. Morse, U. S. Navy, retired.

The Department does not approve the proposed legislation and quotes below, for the information of the committee, a report heretofore made on a similar measure (S. 2163, 58th Cong., 2d sess.) in behalf of Mr. Morse.

Mr. Morse was graduated from the Naval Academy in June, 1866. After about eight years' service he was reported by a board of survey to be unfit for active duty by reason of progressive shortsightedness. Basing its opinion on the statement of the officer concerned, the board expressed the view that said disability originated in the service and in the line of duty. Shortly afterwards a retiring board examined Mr. Morse, and after full consideration of his case, including the report of the board of survey, determined that his incapacity did not originate in the line of duty, and recommended that he be placed on the retired list with furlough pay, which is about one-third of full pay. With the President's approval he was retired accordingly.

On June 17, 1878, the President, with the consent of the Senate, transferred Mr. Morse from the furlough-pay to the retired-pay list under the provisions of section 1594 of the Revised Statutes, which reads as follows;

"The President, by and with the advice and consent of the Senate, may transfer any officer on the retired list from the furlough to the retired-pay list."

This transfer was held by the accounting officers of the Treasury to entitle Mr. Morse to half pay only.

Pursuant to an act of Congress approved June 10, 1902, this officer was transferred, as of that date, "from the half-pay list to the seventy-five per centum pay list of retired officers, under section fifteen hundred and eighty-eight of the Revised Statutes of the United States." Said section provides that:

"The pay of all officers of the Navy who have been retired after forty-five years' service after reaching the age of sixteen (sic) years, or who have or may be retired after forty years' service, upon their own application to the President, or on attaining the age of sixty-two years, or on account of incapacity resulting from long and faithful service, from wounds or injuries received in the line of duty, or from sickness or exposure therein, shall, when not on active duty, be equal to seventy-five per centum of the sea pay provided by this chapter for the grade or rank which they held, respectively, at the time of their retirement. The pay of all other officers on the retired list shall, when not on active duty, be equal to one-half the sea pay provided by this chapter for the grade or rank held by them, respectively, at the time of their retirement."

The bill under consideration purposes to give Mr. Morse the benefit of three-fourths pay from the date of his retirement.

The general policy of Congress upon this subject is expressed in the act of August 5, 1882, in which it is provided that—

"Hereafter there shall be no promotion or increase of pay in the retired list of the Navy, but the rank and pay of officers on the retired list shall be the same that they are when such officers shall be retired."

The act of June 10, 1902, *supra*, appears to be based upon the theory that the retiring board should have found, as the board of survey found, that the incapacity for which Mr. Morse was retired was of service origin, in which case it would seem proper that

he should be allowed three-fourths pay from the date of his retirement, as he would have been entitled thereto had he been retired for disability incident to the service. Not being convinced, however, that the finding of the retiring board was erroneous, and inasmuch as Lieutenant-Commander Morse has twice heretofore been the beneficiary of Congressional action increasing his pay on the retired list, the Department does not recommend the pending measure to favorable consideration.

It may be added that when the measure (H. R. 720, 57th Cong., 1st sess.) which was subsequently enacted as the act of June 10, 1902, above referred to, was under consideration, the committee, before reporting it favorably, requested and received the assurance of the Department that the bill as drawn would not carry arrears of pay.

The attention of the committee is further invited to the fact that the title of the bill (H. R. 5288) contains an error in stating the rank of Mr. Morse, which should be lieutenant-commander, and not lieutenant.

It may also be stated that the amount involved in this case, if that bill becomes a law, would be about \$17,000.

Very respectfully,

V. H. METCALF,
Secretary.

The CHAIRMAN COMMITTEE ON NAVAL AFFAIRS,
House of Representatives.

[No. 68.]

**TO CHANGE TITLE OF WARRANT MACHINISTS, U. S. NAVY, TO
MACHINIST—DEPARTMENT LETTER.**

**NAVY DEPARTMENT,
Washington, February 24, 1908.**

SIR: I have the honor to acknowledge receipt of your letter of the 16th instant, requesting recommendation as to a bill (H. R. 15463) "providing for changing the title of warrant machinists, United States Navy, to machinist, for the promotion of machinists after six years from date of warrant, according to law governing the promotion of other warrant officers, and for other purposes."

The title "warrant machinist" is cumbersome and undesirable.

Section 12 of the personnel act of March 3, 1899 (30 Stat., 1006), as amended by the act of April 27, 1904 (33 Stat., 346), provides for the commissioning of boatswains, gunners, carpenters, and sailmakers six years after date of warrant, to rank with but after ensign. It is believed that equal consideration should be accorded warrant machinists in the matter of promotion and remuneration.

The Department therefore recommends favorable action on this bill (H. R. 15463).

In this connection it is suggested that the words "or may hereafter be" should be inserted in line 7, providing that machinists, on promotion, shall receive the same pay and allowances as are *now* allowed chief boatswains, etc.

Very respectfully,

V. H. METCALF,
Secretary.

HON. GEORGE EDMUND FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives.*

[No. 69.]

**AUTHORIZING THE PRESIDENT TO APPOINT WILLIAM CHARLES
FURER TO THE CORPS OF CIVIL ENGINEERS OF THE UNITED
STATES NAVY—DEPARTMENT LETTER.**

**NAVY DEPARTMENT,
Washington, February 29, 1908.**

SIR: The Department is in receipt of your letter of February 27, 1908, requesting its views with respect to a bill (H. R. 18140) "Authorizing the President to appoint William Charles Furer to the Corps of Civil Engineers of the United States Navy."

At the last examination of candidates for admission to the Civil Engineer Corps Mr. Furer passed with a satisfactory average, being No. 6 on the eligible list; but as there were only five vacancies he, of course, could not be appointed. Though Mr. Furer possesses all the qualifications, he can not, under existing law, be admitted to the corps till a vacancy occurs, the first of which, by regular retirement, will be in 1910.

In the case of Leonard Martin Cox (34 Stat., 1407) the stipulation was made that he might be appointed after he established to the satisfaction of the Secretary of the Navy, by examination pursuant to law, his physical, mental, moral, and professional fitness to perform the duties of the grade of civil engineer. If this bill (H. R. 18140) is to be favorably considered the Department would suggest that similar language be inserted.

It does not appear to the Department, however, that this is the appropriate way to effect an increase in the Corps of Civil Engineers. If the corps is to be increased it would seem that the increase should be made first and the candidate qualify afterwards, rather than to pass a special law creating a vacancy for any person, however worthy, simply because he has qualified—particularly in view of the fact that it has not been established to the satisfaction of the Department that an increase is needed, and, if it had, such a small increase would not have very much effect on the general situation.

Very respectfully,

V. H. METCALF, *Secretary.*

Hon. GEORGE EDMUND FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives.*

[No. 70.]

**TO PERMIT THE PRESIDENT TO REINSTATE CERTAIN DISMISSED
MIDSHIPMEN TO THE NAVY—DEPARTMENT LETTER.**

**NAVY DEPARTMENT,
Washington, February 28, 1908.**

SIR: I have the honor to acknowledge receipt of your letter of the 25th instant, requesting recommendation with respect to a bill (H. R. 17839) "To permit the President to reinstate certain dismissed midshipmen to the Navy."

These young men would, under the terms of this bill, presumably be commissioned as ensigns in June, 1909, without having performed the full two years' probationary sea service.

The Department's views on the question of reinstating midshipmen dismissed for hazing were expressed in a letter dated February 8, 1908, to the Senate committee (re S. 2488), in which it was pointed out that the reinstatement of any such person in the naval service after he has thus affirmatively shown his unfitness therefor would strike at the very root of discipline, because it would necessarily weaken respect for duly constituted authority at the Naval Academy, where such respect is, and must be, instilled.

The Department accordingly recommends adverse action on the bill (H. R. 17839).

Very respectfully,

V. H. METCALF,
Secretary.

Hon. GEORGE EDMUND FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives.*
(783)

[No. 71.]

**FOR THE RELIEF OF LIEUT. KENNETH McALPINE—DEPARTMENT
LETTER.**

**NAVY DEPARTMENT,
Washington, February 28, 1908.**

SIR: In reply to your inquiry of the 15th instant, I have the honor to state that the Department recommends adverse action on the bill (H. R. 5774) "for the relief of Lieut. Commander Kenneth McAlpine," because:

A. This officer's leaving the service July 17, 1903, was caused by his indulgence in the use of alcoholic intoxicants to such extent as to render him morally unfit to be promoted to the grade of lieutenant-commander.

B. Exceptional consideration has already been shown him in the act of March 3, 1905 (33 Stat., 992), in pursuance of which he was restored to the Navy and was immediately promoted to the grade for which he had formerly failed to qualify.

C. The proposed measure would have the effect of conferring upon him all the benefits to which he would have been entitled but for his own misconduct.

D. The enactment of this further legislation would be harmful to discipline in that it would materially tend toward obliteration of the line which is, and of right ought to be, distinctly drawn between the many officers who invariably deport themselves in a manner consonant with the accepted standards of the service and the few who do not.

Attention is invited to the fact that Gustav Kaemmerling is now a commander. To give Mr. McAlpine rank "next after Gustav Kaemmerling," as provided by the first section of the bill in question, would therefore necessitate a promotion in grade and should be made, if at all, subject to the usual examinations.

Very respectfully,

V. H. METCALF, *Secretary.*

HON. GEORGE EDMUND FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives.*

(785)

[No. 72.]

**"TO APPOINT HOLMES E. OFFLEY UPON THE RETIRED LIST OF
THE NAVY WITH RANK OF LIEUTENANT."**

**NAVY DEPARTMENT,
Washington, February 28, 1908.**

SIR: Referring to a bill (H. R. 16684) "to appoint Holmes E. Offley upon the retired list of the Navy with the rank of lieutenant," with respect to which you ask, under date of February 26, 1908, for the Department's recommendation, attention is respectfully invited to the following extract from a letter written April 13, 1906, to the Senate committee in regard to a bill (S. 4214) of similar import:

It appears from an examination of the records on file in the Department that Holmes E. Offley was, on April 12, 1865, appointed by Rear-Admiral L. M. Goldsborough as his secretary, and that he served as such on board the U. S. S. *Colorado* and *Frolic*, and on December 31, 1866, he resigned while at Villefranche, France.

From the foregoing it appears that Mr. Offley served in the Navy in a clerical capacity for about twenty months, when he resigned. In view of the character of his service his case is not one that in any manner commends itself to the favorable consideration of the Department, and it does not therefore recommend favorable action on the measure.

The Department reiterates this recommendation as applicable to the measure under consideration (H. R. 16684).

Very respectfully,

V. H. METCALF, *Secretary.*

HON. GEORGE EDMUND FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives*

(787)

[No. 73.]

**STATEMENT OF HON. HARRY L. MAYNARD AND OTHERS IN
BEHALF OF H. R. 14384, FOR THE PURCHASE OF A LOT OF
LAND ON HAMPTON ROADS.**

COMMITTEE ON NAVAL AFFAIRS.

**House of Representatives,
Tuesday, March 3, 1908.**

The committee met this day at 10.40 o'clock a. m., Hon. Thomas F. Butler in the chair.

There appeared before the committee Hon. Harry L. Maynard, a Representative from Virginia, together with Mr. A. H. Martin, of Norfolk, Va.; Mr. T. J. Wool, of Portsmouth, Va.; Mr. Henry St. George Tucker, of Lexington, Va.; Mr. William M. Geddes, of Washington, D. C., and Mr. Winn Sheppard, of Norfolk, Va., in behalf of the bill H. R. 14384, authorizing and directing the Secretary of the Navy to contract for the purchase of a lot of land on Hampton Roads, Virginia, known as the Jamestown Exposition Grounds.

Mr. BUTLER. The committee will be in order.

Mr. MAYNARD. Mr. Chairman, I have asked the committee to hear some gentlemen, who have come up from Norfolk and vicinity, on House bill 14384, and in furtherance of that I want to introduce to the committee Mr. A. H. Martin, who is receiver for the Jamestown Exposition Company. He will now address the committee.

Mr. BUTLER. All right.

STATEMENT OF MR. A. H. MARTIN, OF NORFOLK, VA.

Mr. MARTIN. Mr. Chairman and gentlemen of the committee, I appear before you as chairman of the board of receivers appointed by the United States court for the eastern district of Virginia to wind up the affairs of the Jamestown Exposition Company. We have there, probably, as you understand, in addition to the other assets of the company, large tracts of land, finely located opposite Old Point Comfort, a plat of the same being exhibited there before you [indicating]. We as receivers have directions from the court to wind up the affairs of this company as speedily as practicable; and in looking over the proposition we have come here to you, gentlemen, recognizing that you have been our friends all the way through; that you have contributed liberally to the support of the exposition; that you have made a loan to the exposition, which unfortunately it was unable to repay in full, and it now leaves the Government as our principal creditor. The receivers are very anxious to repay this money that they owe to the Government, as well as the other creditors of the company. We have assets there in the shape of land and personal property that cost a great deal

more than the debts of the company, and we believe that upon consideration of it the Government will see that it will be a practical business proposition to secure this property for Government purposes.

Mr. BUTLER. Have the assets been appraised?

Mr. MARTIN. The personal assets have been appraised. The land has not yet been. This property, gentlemen, is improved by permanent buildings. It has been thoroughly improved with sewerage facilities and water facilities and electricity, and is finely graded; it has finely graded and paved streets, and granolithic sidewalks; and it is all ready, if the Government sees fit to purchase it, for the Government to take charge of it at once. The Government can move right in and utilize it immediately.

Now, gentlemen, we know that the financial conditions that prevail all over the country are not favorable at this time for making appropriations, and if the Government does not feel that it is appropriate at this time to make an appropriation sufficient to secure this property at once, we feel that it might do so by degrees, and that if the Government indicated its desire to acquire this property, that would be sufficient for us. We do not desire to force this position in any shape or form, as we could if we wished to. We do not, and we simply present it to you as a business proposition. We feel that we owe to you the courtesy of offering it to you first. The Government has been our best friend in this matter. It is our principal creditor, and we owe it to you, gentlemen, to present this proposition to you first, and we are doing it.

Mr. GREGG. Mr. Martin, what is the amount of the debt to the Government?

Mr. MARTIN. It is about \$880,000.

Mr. GREGG. Is that a prior lien, a permanent lien?

Mr. MARTIN. It is not. Now, gentlemen, in addition to securing here this valuable property, which is so nicely located for the wants of the Government, right near Fortress Monroe and right in the harbor of Hampton Roads—in addition to securing all the improvements and advantages that are already at hand, the Government would save by acquiring this property \$400,000 which it has appropriated and expended there for building a permanent pier, and \$350,000 which it has used in constructing its buildings there, and which are all practical and ready for use, making, in addition to securing the payment of the \$800,000 which we owe to the Government, the saving of \$750,000 which the Government has appropriated and used, which is now at hand.

Mr. LOUD. What are the debts of the exposition company, outside of the Government?

Mr. MARTIN. The debts of the exposition company outside the Government, in round numbers, are about a million dollars.

Mr. OLCOTT. How much of a water front is there down there?

Mr. MARTIN. Just about 1 mile of beautiful water front. It is the most desirably located property in the whole United States to-day for the purposes of the Government.

Mr. BUTLER. For what purpose would the Government need this property? To what uses could it be put?

Mr. MARTIN. It is very desirable indeed for a naval training station, for a coal-supply station, a coaling station, it seems to me; and there are other uses to which it could be profitably put.

Mr. BUTLER. Are the buildings adapted to such uses?

Mr. MARTIN. Entirely.

Mr. BUTLER. Are there buildings there that could be used for barracks for men and boys?

Mr. MARTIN. Yes, sir.

Mr. BUTLER. In training them?

Mr. MARTIN. Yes, sir; immediately.

Mr. BUTLER. Permanent buildings?

Mr. MARTIN. Yes, sir. The only thing that would be required there, gentlemen, would be some heating appliances. Everything else would be ready to hand.

Mr. BUTLER. Do you know whether the Navy Department desires a recruiting or training station at that point on the Atlantic coast?

Mr. MARTIN. I think it would be very agreeable.

Mr. MAYNARD. They maintain a station there now at St. Helena. It is not officially known as a training station, but there are always there at least 2,000 men, and the sanitary conditions are not good, and it has not suitable buildings. It has not in any way the necessary sanitary conditions or the buildings necessary for training the men or keeping the men in comfort.

Mr. GREGG. How far is that?

Mr. MAYNARD. St. Helena is 6 or 7 miles from this site.

Mr. LOUD. What are the assets from which you can pay the debts?

Mr. MARTIN. The assets outside of this property are \$50,000. It is personal property. We are conducting the sale of that from time to time. We estimated the sale of the personal property—

Mr. LOUD. And those are the only available assets you have, outside of this property?

Mr. MARTIN. Yes, sir.

Mr. OLCOTT. If we should pay anything like two and one-half million dollars for this, that means that you would be able to pay your debts?

Mr. MARTIN. Yes, sir.

Mr. GREGG. Was the electric lighting plant put in new for the exposition?

Mr. MARTIN. Yes; everything new. That goes with this property. The power was secured from the plant in Norfolk.

[At this point Hon. George Edmund Foss, chairman of the committee, entered the room and took the chair.]

Mr. ROBERTS. You spoke of there being a sewer system in the grounds. How extensive is that system?

Mr. MARTIN. That permeates the whole property.

Mr. ROBERTS. In every street?

Mr. MARTIN. Yes; in every street. That is my understanding of it.

Mr. ROBERTS. What is the size of the pipe?

Mr. MARTIN. I can not give you the pipe.

The CHAIRMAN. The committee will come to order. Only one man can talk at a time, gentlemen.

Mr. ROBERTS. Is there anyone here who can tell the size of the sewer mains or the character of the material? Are they brick or pipe?

Mr. MARTIN. They are pipes.

Mr. ROBERTS. Where is the outlet?

Mr. MARTIN. The outlets are shown on that map [indicating].

Mr. ROBERTS. Then, taking the amount of land that you propose there, we would have to change the outlets for that sewer system?

Mr. WOOL. Oh, no.

Mr. ROBERTS. We can not run sewers over lands that we do not own.

Mr. WOOL. That would have to be guaranteed. The engineers made the statement to us that that was the only practical place to run the sewerage.

Mr. ROBERTS. Where do you get the water?

Mr. MARTIN. From the city of Norfolk.

Mr. ROBERTS. You do not own the water supply?

Mr. MARTIN. No.

Mr. ROBERTS. Have you any standpipe? How you do get your head of water?

Mr. MARTIN. We have a reservoir.

Mr. WOOL. We pump it by gas engine.

Mr. ROBERTS. How much head do you get with that pressure?

Mr. WOOL. Sufficient to supply the largest buildings on the ground.

Mr. ROBERTS. Is the water raised to the second or third stories of any of the buildings?

Mr. WOOL. Oh, yes.

Mr. ROBERTS. How extensive is your water pipe there?

Mr. MAYNARD. It reaches every building in the grounds.

Mr. ROBERTS. What is the size of your mains, the size of your water and sewer mains?

Mr. WOOL. Well, that could be furnished with the maps.

Mr. ROBERTS. What is the depth of water up to that pier from the main channel where the ships lie at anchor?

Mr. MARTIN. It is a 12-foot channel.

Mr. ROBERTS. At high or low water?

Mr. WOOL. At low water.

Mr. ROBERTS. Do you get 15 feet maximum depth?

Mr. WOOL. Yes, sir.

Mr. ROBERTS. How long is that channel from the pier out to where the war ships would lie?

Mr. WOOL. There is one of the Government maps that shows that [indicating]. It will probably give you the information you want.

Mr. ROBERTS. When was that channel dredged—that 12-foot channel?

Mr. WOOL. That channel was dredged by the Government last year.

Mr. ROBERTS. Before that there was no channel?

Mr. WOOL. Oh, yes; there was a channel there.

Mr. ROBERTS. How much channel was there before? What depth, I mean.

Mr. WOOL. There was a boat that drew about 8 feet of water plying for years between the end of Willoughby Spit and this point [indicating].

Mr. ROBERTS. How much water had she under her?

Mr. WOOL. I could not tell you that; probably very little.

Mr. ROBERTS. The Government dredged this channel?

Mr. WOOL. Yes. Some distance beyond the pier they made the channel, and they had to deepen this channel here [indicating].

Right here at the end of this Spit there was a little bar, and they dredged that bar out, and dredged right there [indicating]. All through there is 10 or 12 or 15 feet of water.

Mr. ROBERTS. Do you know whether there has been any shallowing of the channel there?

Mr. WOOL. I could not tell except by an investigation. But in here [indicating], where you see this large area, all the hydrographic maps of the Government have given that for years as being from 10 to 15 feet of water.

Mr. ROBERTS. What is the character of the bottom here?

Mr. WOOL. Sandy here. It is mud when you get down here [indicating].

Mr. ROBERTS. It is soft silt, not a hard bottom anywhere?

Mr. WOOL. I do not know exactly the character of the bottom.

Mr. ROBERTS. How wide is that channel?

Mr. WOOL. I should say about 500 feet wide, if these maps are correct.

Mr. ROBERTS. What is your depth of water, right in front here [indicating]?

Mr. WOOL. It goes from nothing at the shore to about 6 or 8 or 10 feet, about the end of the pier.

Mr. ROBERTS. Do you know what the water is outside of that pier?

Mr. WOOL. It goes from nothing at the shore down to 6 or 8 feet.

Mr. ROBERTS. How long is that pier?

Mr. WOOL. One thousand two hundred feet.

Mr. ROBERTS. That is from the shore?

Mr. WOOL. Yes, sir.

Mr. BUTLER. Now, Mr. Martin, have you had any offers for this property?

Mr. MARTIN. Well, I had an offer some time ago; just a tentative offer. A man met me on the street and said he would be glad to buy it for \$800,000. I told him we were not offering it then.

Mr. BUTLER. That included the buildings?

Mr. MARTIN. That included the holdings of the company. That was just an offer on the street. That offer would very nearly take care of the debts outside of the Government.

Mr. BUTLER. While I remember the provisions of the law in a general way, I do not remember them with the distinctness that I wish I did. Tell me, has the Government any preference here?

Mr. MARTIN. It has not.

Mr. BUTLER. Has the Government the same show as other creditors?

Mr. MARTIN. It has not, I am sorry to say.

Mr. BUTLER. Good gracious, do you mean to say the Government is postponed behind others?

Mr. MARTIN. The Government had a lien on the gate receipts, but the gate receipts did not pan out.

Mr. PADGETT. Is there a mortgage on the property?

Mr. MARTIN. There are two mortgages on the property.

Mr. PADGETT. How much?

Mr. MARTIN. The first mortgage is for \$400,000, and the second mortgage covers the other creditors to the amount of \$600,000.

Mr. PADGETT. So that the two mortgages aggregate a million dollars?

Mr. MARTIN. Yes.

The CHAIRMAN. Are there any other unsecured creditors?

Mr. MARTIN. At the time these mortgages were given the Government was secured on the gate receipts.

The CHAIRMAN. How much did the Government receive?

Mr. MARTIN. About \$112,000.

The CHAIRMAN. How much did the Government put in, all told?

Mr. MARTIN. They loaned a million dollars.

The CHAIRMAN. What else additional—the amount of appropriations for the Government exhibit, and one thing or other? Do you remember how much?

Mr. MARTIN. The expenditures for the pier and buildings were \$750,000, and they appropriated \$250,000 outright.

The CHAIRMAN. I want to get at the total amount the Government has put into the Jamestown Exposition—loaned, and for buildings and dredging, and all told.

Mr. MARTIN. The only amount that the Jamestown officials had the use of at all was \$250,000. The balance of the appropriations made by the Government were handled by their own officials and used in their own way.

The CHAIRMAN. That consisted of a pier, did it not, that cost \$750,000?

Mr. MARTIN. It cost \$400,000.

The CHAIRMAN. What else?

Mr. MARTIN. Buildings, \$350,000; and there were certain appropriations for entertaining the Navy.

Mr. LOUDENSLAGER. What about dredging?

Mr. MARTIN. I think there was \$65,000 for dredging.

The CHAIRMAN. Then there was the loan of a million dollars?

Mr. MARTIN. Yes.

Mr. PADGETT. It was something like \$2,250,000.

Mr. MAYNARD. I would like you to answer Mr. Butler by saying that if the Government would purchase this property the Government would get full credit for all the money it has loaned on the purchase price of the property, and therefore it would come in with every other creditor without preference.

Mr. BUTLER. The two mortgages amount to how much money?

Mr. MARTIN. About a million dollars.

Mr. BUTLER. So that if the Government takes this property it has another million in it?

Mr. MARTIN. Yes; and it has a piece of property that practically cost \$2,000,000.

Mr. OLCOTT. How much more property is there down there than is shown on this plat?

Mr. MARTIN. That is all. That shows the entire holdings.

Mr. OLCOTT. The idea is not for the Government to purchase the entire property? That is not contemplated?

Mr. MARTIN. They would not require it all, perhaps. We would be entirely willing for the Government to take it all, condemn it, or take it in any way it sees fit. This is a practical business proposition as far as we are concerned.

Mr. OLCOTT. It is not believed that the two and one-half million dollars mentioned in this bill would buy all the property?

Mr. MARTIN. I think that would buy it all.

Mr. LOUDENSLAGER. Do the mortgages you speak of down there cover the Government property too?

Mr. MARTIN. No.

Mr. HOBSON. Please point out the lines of the property there.

STATEMENT OF MR. T. J. WOOL, OF PORTSMOUTH, VA.

Mr. WOOL. Mr. Chairman and gentlemen of the committee, the property of the company extends from Maryland avenue on the west to Bush Creek on the east; this creek running in here [indicating] and from Ninty-ninth street to Willoughby Bay.

The CHAIRMAN. How many acres?

Mr. WOOL. It contains about 330 acres, I guess, in all.

Mr. HOBSON. Was there any understanding with the Navy Department that in return for the interest the Government took in the enterprise the property would be turned over to the Government at the close of the exposition for naval purposes?

Mr. MARTIN. I do not so understand. The bill provided that when the exposition ended the pier should be offered to the exposition company, and they should have the right to purchase it first. I think I am correct in stating that, Mr. Wool.

Mr. HOBSON. In the estimates of the sale the buildings that the Government has already erected at its own expense, I presume, are not included?

Mr. MARTIN. Certainly not.

Mr. LOUD. What is the amount shown by your books for expenditures on sewerage?

Mr. MARTIN. I am going to ask you to hear Mr. Wool, gentlemen, on that question. He is our counsel.

Mr. TALBOTT. Has the Government the right to move its buildings away?

Mr. MARTIN. Yes, sir; I am going to ask you to hear Mr. Wool, the counsel for the company. He has the facts in hand.

Mr. ROBERTS. I would like to ask Mr. Martin if he knows how many acres there are on that parade ground?

Mr. MARTIN. About 30 acres, I should say.

Mr. BATES. I would like to ask one question about the ownership of these State buildings. Who owns those buildings?

Mr. MARTIN. The various States own the buildings, and they have options on the land, to purchase them if they desire, for ninety days from the 4th of February, under the order of the court.

Mr. LOUD. I had no reply to my question as to what amount was expended for sewerage.

Mr. MARTIN. I will ask you to ask Mr. Wool.

Mr. HOBSON. Would the counsel kindly bring out the legal status of the purchases in connection with the State government buildings?

Mr. WOOL. I will be glad to do so.

Mr. MAYNARD. You have that list there. Suppose you read out the items.

Mr. WOOL. Water sewers and drains are put down here at \$80,000.

Mr. LOUD. At how much?

Mr. WOOL. Eighty thousand dollars.

Mr. ROBERTS. By "water sewers" do you mean surface water?

Mr. WOOL. I supposed that was everything.

Mr. ROBERTS. I understood somebody to say you had a sanitary system. That was the sewer for surface water, too?

Mr. WOOL. Oh, yes.

Mr. LOUD. Does that include the water supply, for pumping, and all that?

Mr. WOOL. That does not include the reservoir. The reservoir cost, I think, about \$15,000.

Mr. LOUD. Is that within the grounds?

Mr. WOOL. Yes. It cost \$18,500. That is a reservoir of concrete construction. That holds 2,000,000 gallons of water, built for that purpose, and the pumping house is a concrete pumping house adjoining it, with the machinery all installed. It is put down here by the auditor at \$5,000 cost.

Mr. LOUD. Does that list that you have show the different items?

Mr. WOOL. Yes.

Mr. MAYNARD. That is what I suggested that he read; that he read that list to show what the different improvements cost.

Mr. WOOL. I can do that. This manufactures building and transportation building, the two large buildings which are built permanently, cost \$178,000. Those buildings—

Mr. HOBSON. The two or each?

Mr. WOOL. For the two, \$178,000.

Mr. BUTLER. What is the character of the construction of these two buildings, please?

Mr. WOOL. It is a very complete and thorough frame, with one brick veneer; two bricks at a certain distance, and one brick the rest of the way. The estimates are that they would last a long time in our climate.

Mr. LOUD. What is the nature of the roofing?

Mr. GEDDES. Tile or slate.

Mr. LOUD. That is the 4-inch veneer of brick?

Mr. WOOL. Yes; to a certain distance.

Mr. MAYNARD. Eight-inch veneer below and 4-inch above.

Mr. WOOL. They are tied in a very solid frame. You gentlemen must, of course, realize that the frame must have been very solid and safe, because it was built to accommodate a large number of people, and at the same time the idea of safety was carried out.

Mr. LOUDENSLAGER. What insurance is carried on those buildings?

Mr. WOOL. We are not carrying anything.

Mr. MARTIN. We have a very effective fire company there.

Mr. WOOL. The agents have been unable to insure them because of their being uninhabited.

Mr. LOUDENSLAGER. What is the size of those buildings?

Mr. WOOL. This [indicating] is 580 feet in length and in width about 350 feet.

Mr. MAYNARD. They are without partitions?

Mr. WOOL. Yes. They could be divided up and used for engineer drill grounds and barracks, or anything of that kind.

Mr. MAYNARD. In bad weather they could be used as drill halls?

Mr. WOOL. Yes. Now, the auditorium is a solid brick structure, which cost \$80,000. You gentlemen who were there will remember the auditorium. We have some beautiful views of it here [producing same]. It is a very beautiful and solid building. It ought to last one hundred years without trouble. The educational buildings on either

side cost \$80,000. This history building cost \$140,000. It is built of concrete. There is no wood in it. The marine appliances building cost \$28,000, a building corresponding in size to the fireproof history building, but it is not so permanent in construction. It is more in the nature of a frame building. The frame is absolutely solid, but it is covered with a kind of staff.

Mr. ROBERTS. Are the frames of wood or of steel?

Mr. WOOL. They are wood. There may be, of course, some steel girders, but they are wood frames, and they are very solidly built. They are of the same inside class of buildings that there are largely in the various navy-yards of the country. Now, the pure-food building and the mines building cost together about \$102,000—\$51,000 each. The convention hall cost \$27,800. The service building, a fine building, cost \$24,000. The power fuel building cost us \$27,000. That was given over to the use of the Government for testing fuel and making these briquettes for experiment in the Navy, and it was constructed with a view to that use. Then the reservoir cost \$18,500. The pump house cost \$5,000, and the fire-engine house and stables here I am estimating at \$15,000. This figure did not come from the books.

I thought all the way up that if the Government requires that portion of land east from Commonwealth avenue westward, they ought to vary the line so as to take in that building there [indicating], for the purpose of availing themselves of the fire-engine house and all the stables that would be needed.

Mr. ROBERTS. That is permanent construction, is it?

Mr. WOOL. Yes, sir. Then lagoons, entrances, and band stands, all this work in here [indicating] that was necessary, cost \$30,000. Water, sewers, and drains, \$80,000; walks, \$25,000.

Mr. ROBERTS. Let me understand that again. "Water sewers," is it, or is it water?

Mr. WOOL. Water pipes, sewer pipes, and drain pipes; that is labor and material and installation, \$80,000; walks, \$25,000, and streets, \$55,000. The canoe trail is dredged out—this section over here [indicating]—so as to make a good drain for the entire property, and also so that small boats could come up there, making it all 2 or 3 feet deep—\$15,000. The arts and crafts buildings, the frame buildings you may have noticed around the States exhibits building, were \$21,000; social economy, \$23,400.

Mr. BUTLER. What! Social economy?

Mr. WOOL. Yes; \$23,400. Then the woman's society building cost \$2,500. That is this building in here [indicating]. The State exhibit building cost \$104,500; the long pier, \$26,300.

Mr. MAYNARD. How long is that pier? It is 1,600 or 1,800 feet, is it not?

Mr. WOOL. Nearly 2,000 feet.

Mr. MAYNARD. It is a private pier.

Mr. ROBERTS. It was not completed?

Mr. MAYNARD. Yes. it is completed. It runs 2,000 feet into the water.

Mr. WOOL. Then there is the incinerator or crematory, for burning up rubbish, \$6,000. The cost of the athletic field, where all this training took place, was \$3,000, and the landscape gardening and filling amounted to \$30,000, and the designs of the various build-

ings and the supervision of the construction cost the company \$50,000. That makes a total of \$1,208,000, to say nothing of the value of the land, and to say nothing of the value of the water front.

Now, in reply to the questions that have been asked, I will say that the exposition company, at the time it asked for a loan of \$1,000,000, did not owe any considerable amount of money to anyone. It was believed by those of us who were in close contact with the work that \$1,000,000 loaned by the Government would pay every dollar that would be needed to the opening of the exposition, and more besides. I was the chairman of the budget committee, and I had budgets from every single department that came to my committee. The matter was as thoroughly gone over as anything could be that had not taken place. We had reports from every single department as to just how much they would need, and the needs of the various departments showed that besides the assets that we might reasonably rely upon, \$1,000,000 would be more than would be necessary to complete the exposition.

Consequently we came to Congress and asked for a loan of that million dollars, because we could not get it anywhere else, and we had the exposition half completed. You will remember that the Congress of the United States had sent invitations abroad to the various people of other nations, and to the various naval powers especially, to come and participate in this exposition, and it was absolutely impossible to complete that exposition without Government assistance, and the credit of this Government was given to us. We came to Congress and asked for the million-dollar loan, under the firm belief that when that exposition opened the only debt we would owe, besides that to our stockholders, would be the \$1,000,000 owed to the Government.

Now, this Government pier was to have been completed on the 2d day of May under the contract entered into by the War Department, I think it was, and this was to be the beautiful thing in our exposition. The very bad weather of last April—last February, March and April—delayed the construction to a great extent, and the fact that our money got scarce at the time that we most needed it, and the time taken up in getting the million-dollar loan through at the time we most needed it, also helped to delay matters so that when the exposition opened it was not completed.

It was a matter of pain and regret to us, who had worked for years on this exposition in the hope that we might have something really beautiful and creditable to exhibit to the nation; but when the time came when it had to be opened, and the opening could not be deferred, it was not completed. But we opened it, nevertheless, and went ahead, doing the best we could, receiving criticism upon criticism, largely where it was not deserved; and we attempted to do the honors as best we could, with the able representatives that the Government sent us, with General Grant representing the Army and Admiral Harrington representing the Navy. When this piece of land had been given up to the contracting company that was at work on these piers, our beautiful auditorium was completed, and by the 1st of July, so far as the exposition company was concerned, practically everything was done that we had to do. Still that beautiful portion of the picture was uncompleted. Upon those piers they were still working, and it was not until the 14th of September that that work

was absolutely completed; and consequently we ourselves were the victims of circumstances, and it was impossible for us to do that which we had hoped would be done by the United States Government, because the contractor who was under the control of the War Department did not keep up to his contract, and thereby prevented us from having our exposition in such shape that we could show the people what we had.

We found out when the 1st of July came that, with the extraordinary expenses that we had been under, the million dollars had not been enough, and that the receipts that had come in to us were insufficient. We had set aside 40 per cent of the receipts for the Government in a special fund, and never touched it, so as to return to the Government the million dollars that was due it; but we found that the bills that were pressing upon us and which we could not pay would force us into the hands of a receiver in the very midst of the exposition, and we then did what we ought to have done—we put a mortgage upon our property, so as to make this exposition last to the end, to secure the creditors. When we found out that one mortgage would not be enough, we put another mortgage on it, and we tied it up to such an extent that no creditor could interfere with the operation of that exposition until the 1st of November came, when they could take the whole thing and do with it what they saw fit. But we considered that the credit of the Government was at stake, and that that exposition must be run to the end.

In the middle of July we told the creditors that it was impossible for us to return to the Government the 40 per cent of the money that was taken in at the gates and through concessions, and we practically said to our creditors: "Here is our exposition under the bill that was passed by Congress. You can take it, and you can run it. We have done our best. We have sweated drops of blood over it. We have worked over it for years. We have put our money into it, but a delay in construction and the extraordinary cost at this period has put us in such a position that we are absolutely unable to recoup our losses; and, in addition to that, the prejudice and criticisms which have gone forth throughout the country with reference to the uncompleted condition of the exposition seem to be such that we could not bring the people here to see it, although we have a beautiful and complete exposition here, with the exception of the Government's pier."

Mr. DAWSON. I understand this pier was really a gateway to the exposition.

Mr. WOOL. Yes; it was to be the great feature. It was to be for the Jamestown Exposition what the MacMonnies fountain was at Chicago, and what the cascades were at St. Louis. It was the one thing that broke up the monotony of this beach and made the beautiful lagoon. I regret I have not a picture of it here to show it—a basin 1,200 feet long and 580 feet wide.

Now, then, the Secretary of the Treasury said, "I have authority under the act of Congress to take possession of this exposition. That is true, and if I do that, I must use all the money that comes in—the gate receipts and the receipts from concessions—to operate this exposition. But," he said, "I do not think it is expedient to disturb the organization that is already there. Go ahead and do the best you can, and I will help you as best I can; but, for God's sake, keep this exposition open to the close, because the credit of the country is largely at stake."

I tell you, gentlemen, that there were days when such discouragement reached the hearts of the men at the head of this enterprise that they wished almost that they were out of the country; but in spite of that we met and we vowed this thing, that even if we had to go ourselves and stand at the gates, that exposition should keep running until the end; and we did it, and that is the way we came to put the mortgages on the property, and they stand there to-day to protect the people from those who would have wrecked the exposition in the very center of it—some of them—and it was well that we did so.

It was well that we had the land to do it with, otherwise there would have been something more discreditable to this Government than anything that could have occurred. But, gentlemen, we planned wiser than we thought when we acquired this land. We started out with the idea that we would not build an exposition upon land that did not belong to us; that we would not put all the effort and money and buildings into a great enterprise and have it wiped off the earth as soon as the exposition was over. For that reason we acquired title to this land, and I say it without fear of contradiction, that it is one of the most beautiful sites in this whole United States.

Mr. PADGETT. What did the exposition pay for the three hundred and some odd acres of land at the inception?

Mr. WOOL. Some of it we paid \$750 an acre for; some of it was given to us, and some of it we paid \$500 an acre for.

Mr. PADGETT. I wanted just the aggregate.

Mr. WOOL. The aggregate amount we paid for that land was something like one hundred and fifty thousand or one hundred and sixty thousand dollars, but a great deal of that was given to us.

Mr. MAYNARD. A great deal of that was in the swamp and lagoon, and had to be filled up?

Mr. WOOL. No; not much had to be filled up.

Mr. ROBERTS. Did you pay \$150,000 or \$160,000 in cash?

Mr. WOOL. Not all cash.

Mr. ROBERTS. How much cash?

Mr. WOOL. I think we owe now about \$50,000 of it.

Mr. ROBERTS. About \$110,000 you paid in cash, and you still owe \$50,000?

Mr. WOOL. Yes.

Mr. ROBERTS. You stated a few moments ago that you put your own money into the enterprise?

Mr. WOOL. Yes.

Mr. ROBERTS. How much stock was subscribed for in the exposition company?

Mr. WOOL. Well, sir, that was all very fully gone into in the hearings that were had before. I would like to give you definite information, but, not being the auditor of the company, I could not state exactly. There was \$500,000 subscribed, known as the common-stock fund, and there was \$500,000 subscribed, known as the preferred-stock fund. My information is that about \$350,000 was preferred, or the preferred-stock subscription—

Mr. MARTIN. Four hundred and some thousand dollars of preferred stock—

Mr. WOOL. Yes; and I suppose about \$200,000 has been paid on the common stock, and the common stock, of course, is still liable for the balance, and the preferred stock is liable for the balance. I

can give you an illustration for myself. I subscribed for \$5,000 common stock of this company; I paid \$3,100 in, and I am liable for \$1,900 more.

Mr. ROBERTS. Then substantially you had \$600,000 paid in, out of a million dollars' subscriptions for both classes of stocks?

Mr. WOOL. Substantially.

Mr. ROBERTS. That was paid in at par?

Mr. WOOL. Yes.

Mr. ROBERTS. Nobody got their stock at less than par?

Mr. WOOL. No. My contact with this company has gone on for an extent of five or six years, and, so far as I know, there is not one man who ever received a dollar except what was voted to him for salary.

Mr. ROBERTS. Was any of that subscription money paid in property, or was it all in money?

Mr. WOOL. All in money.

Mr. ROBERTS. Then the receivers have a claim against these subscribers to the stock for over \$400,000?

Mr. WOOL. Yes.

Mr. MARTIN. That stock was assigned as security for the loan in July?

Mr. WOOL. It was used as collateral, but it goes to the wiping out of the debt.

Mr. ROBERTS. Then I take it that there is no claim on the part of the assignees against the subscribers of that 400,000 shares that were not paid up?

Mr. MARTIN. No; but we can not enforce any claims at this time. It is in the hands of receivers.

Mr. ROBERTS. That stock would then revert to the treasury?

Mr. MARTIN. No; that stock was assigned to the trustees as security for certain cash advanced. They were authorized to collect it, and are collecting it to-day to repay the loans they made.

Mr. ROBERTS. Then, in other words, the parties to whom this was assigned have an action against the subscribers and not against you as receivers?

Mr. WOOL. It goes to pay the debt.

Mr. ROBERTS. Can you tell us offhand how much of that \$400,000 is likely to be collected?

Mr. MARTIN. I think not. I think there is quite a little amount of it that can not be collected. I think so from my information.

Mr. PADGETT. Now, Mr. Wool, you stated that there was about \$160,000 expended in the purchase of the land, and that the rest of the land was donated. Can you state in gross how much was donated?

Mr. WOOL. About 150 acres.

Mr. PADGETT. That was donated?

Mr. WOOL. Yes. Possibly 130 acres would be nearer the exact amount.

Mr. PADGETT. Was that 130 acres practically of the same value as the other?

Mr. WOOL. Yes, sir.

Mr. PADGETT. So that about \$300,000 would then have been the purchase price?

Mr. WOOL. I would state that, of course, when the matter of holding the exposition was first brought up, different companies advertised for locations, and different real estate companies offered different

locations. One company, I remember, offered the whole site; a company that had a thousand acres offered a site of 200 acres free, to give it to the exposition, because the value of the surrounding property would be increased. But this site was decided upon as practically the only site where the exposition could be held on the land in conjunction with a great exposition on the water.

Mr. HOBSON. Is that loan made in stock included in the \$600,000 of the mortgages? Is that another encumbrance?

Mr. WOOL. Mr. Martin made the statement that the company owed, outside of what it owed the Government, about a million dollars. It may run a little more than a million dollars. It will hardly be less.

Mr. HOBSON. That includes everybody?

Mr. WOOL. Everybody outside the exposition or the stock.

Mr. MARTIN. That does not include any of the stock liability; only debt liabilities?

Mr. TALBOTT. The subscription to the stock, common and preferred, is that part of the assets covered by the mortgage?

Mr. WOOL. The first mortgage was on the real estate and the second was on the real estate and personal property, except the subscriptions to the stock. Subsequently it became necessary to have \$100,000, or nearly that amount, in order to hurry up the completion, and certain individuals agreed to subscribe the various amounts, provided the stock subscriptions were pledged to guarantee their loss.

Mr. TALBOTT. The unpaid stock subscriptions?

Mr. WOOL. Yes; in that way \$80,000 was raised, and \$50,000 of it, I believe, was not used and was returned to them.

Mr. MARTIN. Twenty thousand dollars?

Mr. WOOL. Yes; and \$20,000; so that the stock subscriptions as they now stand are subject to a loan of \$60,000, after which they would be liable for the general debts of the company.

Mr. PADGETT. You stated there that that part of the tract that is supposed to be necessary to the Government—is that part west of Maryland avenue?

Mr. WOOL. That is Commonwealth avenue.

Mr. MAYNARD Maryland avenue is farther over.

Mr. PADGETT. That is west of Commonwealth avenue, embracing about 220 acres?

Mr. WOOL. Yes. That is an estimate.

Mr. PADGETT. And all the water front coming up this way?

Mr. WOOL. Yes; covering the whole water front.

Mr. PADGETT. Now, what is the proposed price of this 220 acres and the water front? You would keep out the other land?

Mr. WOOL. That would be simply a question of what it was deemed to be worth to the Government.

Mr. PADGETT. I thought you would have had some idea.

Mr. WOOL. We have an idea, of course. We think the land there is worth somewhere in the neighborhood of \$2,500 or \$3,000 an acre. There are 220 acres, and that at \$2,500 an acre would make that much land worth about \$500,000; and our estimate is that the water front here is worth a couple of hundred thousand dollars.

Mr. PADGETT. So that in round numbers \$700,000 would be the value of the part of the land desired and the water front?

Mr. WOOL. Yes.

Mr. HOBSON. I understand that the list of assets, as enumerated in the sum total given, includes the unpaid subscriptions?

Mr. WOOL. Oh, yes. That would have to be estimated, as to what it was worth.

Mr. ROBERTS. I would like to get clearly into my mind what you mean by the water front, provided the 230-acre proposition was accepted.

Mr. WOOL. This water front runs from Maryland avenue all the way to the end of the property, and it includes—so far as that portion west of Commonwealth avenue is concerned, it includes simply from the boulevard out, from the northern side of the street out. That does not include any high land to amount to anything.

Mr. ROBERTS. What would be the average distance back to the high-water mark?

Mr. WOOL. You will remember the street runs very close to the water:

Mr. PADGETT. It is something like 20, or 30, or 40 feet, as I remember it.

Mr. WOOL. I can show you why this water front would be valuable some day, in case they tried to establish a naval training station here [indicating]. The Tidewater Railroad owns all this property here [indicating]. This is south. It is the Virginia Railway now, I believe. It has bought 550 acres of land lying immediately back of this property, having a frontage of 600 feet on the Elizabeth River and running back to Bush's Creek. That will be one of the great coal-carrying railroads of this country some day.

Mr. MARTIN. They are expending \$10,000,000 on the terminals right there now.

Mr. WOOL. And this property from the avenue to the Elizabeth River here [indicating] is all divided up into little lots that are being held at high valuations.

Mr. PADGETT. They belong to individuals?

Mr. WOOL. Yes; they belong to individuals. This tract of land here [indicating] is entire and complete in itself, having a mile front on the Elizabeth River, and having a mile frontage on one of the greatest railroads. It is an ideal situation, so far as the Government is concerned; in the climate, that is usually cool and salubrious; in the harbor, that is always open, winter and summer, and with a great naval station near at hand, and with a place where the ships very frequently run.

Mr. PADGETT. The railroad frontage is only six-tenths of a mile. It is less than the water frontage?

Mr. WOOL. Yes; that is true. All you need is connection.

Mr. ROBERTS. What is your idea of the value of that water front to the Government, with only 60 feet back?

Mr. WOOL. Fifty years from now, supposing the Government had established a training station and found out that they needed more land for Government purposes, they could not buy here [indicating] very well, because it is a railroad, and they could not buy back here [indicating], because it would be solid; and all they would have to do would be to pump in the mud here [indicating], and these 50 acres here and 100 acres there they could make at small cost, and at the same time that they would be pumping that and making that land they would be deepening the channel in front, so as to bring in larger

boats. We do not claim that Willoughby Bay is a place for large boats. The hydrographic surveys show that it is a place for small boats. But for that very reason it is an ideal situation for a naval training station. Take the boys from the West who are not used to water: That Willoughby Bay, protected as it is, would make a magnificent place in which to get those boys acquainted with the use of water, and this Smith Harbor in here [indicating] would be a magnificent place for it. So that the Navy Department is ready to say this to you—the Assistant Secretary of the Navy is prepared to say to the committee—that they do not consider the purchase of this property as necessary to the Navy as other expenditures; frankly they would prefer, if the money had to be spent, that it should be spent on something else afloat; but they do say that this property is absolutely desirable and needful for the Government, and that they would be gratified to have it, and that they could move in to-morrow and use it by simply putting in a heating plant.

Mr. HOBSON. Explain what you mean by deferred payments in case the Government should decide to take it.

Mr. WOOL. You can draw a bill in such a way as to provide for the purchase of as much property as the Navy Department may need. The Assistant Secretary said that he did not see that they would need any further than this, and I do not think they would, because with this vast area of shallow water front they could make as much land as they needed in the future at small cost, and at the same time benefit the water front.

Mr. HOBSON. Would that include a parade ground?

Mr. WOOL. Yes; a parade ground already prepared, from 26 to 30 acres; one of the finest parade grounds they ever had in the country.

Mr. MARTIN. The health of General Grant's army was better there than at any place to which they had been sent. That is the record.

Mr. WOOL. Now the idea is simply this: If this bill were prepared in such a way that the Secretary of the Navy is authorized to contract for the purchase of this property, provided that the debts secured by the Government shall be credited as a part payment upon the same, and the balance be paid in one, two, or three years, or in one, two, three, four, or five years by Congress and without interest, then it would be simply a matter of negotiating with the Secretary of the Treasury as to the price of these improvements. My own idea as to price, to be frank, would be about \$2,000,000.

Mr. ROBERTS. That is, for the whole improvements?

Mr. WOOL. Two million dollars for this much land here, and all improvements.

Mr. ROBERTS. Clear out to the end?

Mr. WOOL. Yes; for everything that the Secretary of the Navy wants.

Mr. HOBSON. You have not yet covered the point I asked early in the hearing, as to what would be the status of the State buildings.

Mr. WOOL. I am coming to that. In this particular area there are some 8 or 10 State buildings. We had a meeting with the State commissioners some time ago. All of these buildings are permanent buildings, except possibly the New York building, which could be easily made permanent by substituting some material for the outside wall, which is now of staff. The frames are all right, and the plans are all right. These States would be very glad—I know it positively—to contract with the Secretary of the Navy in the same way that

the exposition company would, and if you authorize the Secretary of the Navy to purchase that property and the improvements thereon, it simply becomes a matter of his contracting to get the improvements, and I am satisfied that all the States there would sell their buildings for practically one-half of what they cost, and some even go so far as to say that they would be glad to dedicate them to the Government.

Mr. HOBSON. You have not any statements from them?

Mr. WOOL. No, sir. But we had a meeting with them, and they all signified their willingness to do what was right. The fact is, they would be proud to have a building, which had been erected by their State at this exposition, occupied there permanently by the National Government afterwards, because it would always be known by the name of that State, no matter who occupied it, and it would be a tribute to that State.

Mr. HOBSON. Do you contemplate calling upon subscribers to pay any of the unpaid subscriptions?

Mr. WOOL. Absolutely. The receivers are in the United States courts, and you may be sure that the representatives of the receivers will see that all available assets are used for paying all debts.

Mr. GREGG. If you sell the property for enough, there will be no necessity for going back to them.

Mr. MAYNARD. If you collect it you would make it equitable with those who have paid.

Mr. MARTIN. I explained why the receivers did not have charge of the collection of the unpaid subscriptions to the stock. I have also explained that the indebtedness did not embrace any liability on account of stock indebtedness.

Mr. ROBERTS. Do the States own the land upon which the buildings rest?

Mr. WOOL. They have options upon the land, and they can purchase it at any time within sixty days from to-day. The court gave them ninety days from the 4th of February.

Mr. ROBERTS. If they do not exercise that option, they will become tenants at will, and they will have to get their buildings off?

Mr. WOOL. Yes.

Mr. MAYNARD. In the event the Government purchases this land, the option would then be with the State commissioners and the Government. The Government would own the land that the State commissioners have the option on.

Mr. ROBERTS. If Congress should authorize this bill, then these people could immediately, within sixty days, take advantage of that option and buy that land, and there would be just that much less for the Government to get, and these people would be put right down in the middle of the Government's land, and the Government would have to deal with them.

Mr. WOOL. If you gentlemen will put a maximum price in your bill, say \$2,000,000—

Mr. HOBSON. This proposition to the Government is not quite complete until you come down prepared to protect the Government as to these State buildings. I do not understand why you gave them an option on the land, especially when you are preparing to make a proposition to the Government.

Mr. WOOL. When this exposition was first talked of, and when we went to the various States and asked them to contribute to the exposition, it was stated to them then that they would have an option

upon the ground upon which to build their buildings, believing, of course, that the exposition would pay out, and that if any portion of it was needed by the State of Virginia or by the Government of the United States or by any of the individuals or corporations for school purposes of any kind we would still have the land upon which we could give them options, so as to let their buildings stay there.

Mr. HOBSON. This would settle it, if I understand that the options on the land were the original proposition.

Mr. ELLIS. How long will the option last?

Mr. WOOL. The right to purchase would expire in ninety days after the close of the exposition, but inasmuch as the company went into the hands of a receiver, the State commissioners petitioned the United States court for an extension of time, and a decree was entered extending it.

Mr. HOBSON. Would it be possible to get a statement in writing as to the release of options, on the basis of the releases of options, from the various States? Could you undertake to do that?

Mr. WOOL. Yes; we could do that, or the Government could exercise the right of condemnation as to the improvements.

Mr. HOBSON. Of course, it might ultimately exercise that right, but in advance, before we finally commit ourselves to that position, could you not get that in writing in a businesslike way before we close the deal?

Mr. WOOL. I think the commissions appointed by the various States have the authority, and I think we could get an amount named by them at which they would sell their buildings to the Government. The only thing is that they have only sixty days in which to protect themselves, and they will have to buy the land or else lose everything.

Mr. BUTLER. And the legislatures of those States are not in session.

Mr. PADGETT. They have got to act with more rapidity than we have.

Mr. WOOL. Yes; but I think there will be no trouble about it. If they sell their buildings at all, they will sell them at such a low price under these conditions and under these circumstances that the Government will get a very advantageous result.

Mr. HOBSON. Why could you not go on a patriotic proposition and ask them to relinquish, and let the Government buy it?

Mr. WOOL. We have done that. Some say that they are perfectly willing to sell it to the Government at a reasonable price.

Mr. MAYNARD. That is at much less than the cost.

Mr. ROBERTS. If one of the States within the next sixty days sells its building, that would carry the right to buy the land, would it not?

Mr. WOOL. Yes. I would like to say, with reference to the State situation, that there are six or seven State buildings located there, and I am satisfied that the amount involved will not be more than \$50,000 in the aggregate, and I am sure that in whomsoever hands they are, whether in the hands of the State commissions or of individuals, we can assure this committee that if they give the Secretary of the Navy authority to contract and purchase that ground, we can see that it is gotten at a price that to him will seem reasonable and just.

Mr. HOBSON. That will be satisfactory to me. Another point is this: Can you safeguard the trolley connection? I understand there is good trolley connection with the town now. There is no proposition to discontinue, is there?

Mr. WOOL. No. This section here [indicating on map] represents a value to-day that would run into a million dollars in improvements and

land, excluding the railroad, and it would be absolute folly for this company ever to do away with the trolley.

Mr. MARTIN. They have a ferry right here with Newport News. That was running long before the exposition was started.

Mr. DAWSON. And they also have an amusement park?

Mr. MAYNARD. Yes. There is no possibility of the trolley line being taken away.

Mr. WOOL. I have some books here, gentlemen, that will give you some idea of the buildings and grounds of the exposition.

Following is a statement filed by Mr. Wool:

STATEMENT.

Manufactures and transportation.....	\$178,000	Streets.....	\$55,000
Auditorium.....	80,000	Canoe trail.....	15,000
Education.....	80,000	Arts and crafts buildings.....	21,000
Fireproof.....	140,000	Social economy.....	23,400
Marine appliance.....	28,000	Women societies' building.....	2,500
Pure food.....	102,000	States exhibit building.....	104,500
Convention hall.....	27,800	Long pier.....	26,300
Service building.....	24,000	Dixon's incinerator.....	6,000
Power fuel.....	27,000	Athletic field.....	3,000
Reservoir.....	18,500	Landscaping, grading, and filling.....	30,000
Pump house.....	5,000	Designing and supervision.....	60,000
Fire engine house and stables.....	15,000	About 1 mile of water front, with riparian rights.....	
Lagoons, entrances, and band stands.....	30,000	About 200 acres of land.....	
Water, sewers, and drains.....	80,000		
Walks.....	25,000		1,208,000

Petition of the Negro Development and Exposition Company of the United States of America.

The CHAIRMAN OF COMMITTEE ON NAVAL AFFAIRS,
House of Representatives, Washington, D. C.

SIR: Your petitioners, the Negro Development and Exposition Company, United States of America, respectfully represent that, should your honorable body see fit to purchase the land and tenements belonging to the Jamestown Exposition Company, you would also appropriate twenty-one thousand (\$21,000) dollars for the purchase of and to purchase the 10 buildings now upon the negro reservation of the Jamestown Exposition. This does not include the main building, which also is upon the negro reservation.

The said 10 buildings were erected by the said Negro Development and Exposition Company at a cost of \$21,000. It took strenuous efforts to raise the money necessary to make the negro exhibit a success, in addition to the appropriation made by Congress; and it was indeed a marvelous success from every point of view, as is evidently known by a large number of the Members of Congress. This the members of your committee can bear witness to if they visited the negro department. This department was one of the leading features of the great exposition, and was visited by thousands and thousands of people of both races. There was no day when there were less than 3,000 people in attendance upon this department. From three to ten thousand people saw the negro exhibit daily, all of whom pronounce it a wonderful success. None came and went without speaking of the highest terms of the product of the negro's brain as evidenced by this exhibit. The President and Mrs. Roosevelt spoke in

highest terms of commendation of the unique and complete negro exhibit. The country at large, if called upon, would speak as one man in the highest praise of the success of the negro department.

On account of the marvelous success of this exhibit it has been suggested to remove the main building to the city of Richmond, and there to perpetuate the said exhibit as a national negro museum and school of art, in commemoration of the negro of this country. The fact that the Negro Development and Exposition Company spent four years of hard labor and has expended more than sixty thousand dollars (\$60,000) not including the appropriation made by Congress to aid the said company in promoting the exhibit, there is not in the treasury of the company sufficient means with which to undertake the removing and perpetuation of the exhibit as it was installed in the negro building.

Therefore, it would be a great relief to our company should your committee see fit to amend the proceedings now before you in order to appropriate the sum of \$21,000 for the purchase of the said 10 buildings, and enable the company to proceed at once to perpetuating the said exhibit as a national negro museum and school of arts.

We would respectfully submit that the design of our buildings is as pretty as any upon the grounds, and that the said buildings were constructed with great cost and care, and that they would not only be of value, but would be an ornament to the reservation. As to the taste, beauty, and substantial workmanship of the buildings, we refer you to any who have seen them.

Your petitioners have no claim whatsoever upon the grounds on which the buildings stand, as it belongs to the Jamestown Exposition Company. Therefore, should you buy the grounds for the said Jamestown Exposition Company, we feel certain that you will make no mistake in also purchasing the 10 negro buildings at the cost of \$21,000. We feel certain that should your honorable body or any part of it see fit to visit the Jamestown Exposition before rendering your decision that you will agree with us that the negro buildings are worth the amount that we ask.

It is hardly necessary for your petitioners to say that they unite with the Jamestown Exposition Company in their petition to the Government to buy the entire reservation, because this company is a local one, and as such, feels interested in the development of all parts of Virginia, and for the Government to purchase this land and use it for the purpose set forth in the bill and proceedings now before you, it will not only be of incalculable value to the Government, but an addition to the importance of that part of Virginia in which the land is situated. And as Virginians we all unite in the prayer for the Government to buy the entire land.

We understand that there will be a hearing before your honorable committee Tuesday, March 3, on behalf of those who desire the Government to buy the land. We would respectfully ask to be heard at this hearing of the committee or at some future time.

Your petitioners will ever pray.

GILES B. JACKSON,
Director General.
R. T. HILL,
Treasurer.

[No. 74.]

LETTER FROM GOVERNOR OF NAVAL HOME, PHILADELPHIA,
PA., RELATIVE TO ACT OF MAY 4, 1898—DEPARTMENT LETTER.

NAVY DEPARTMENT,
Washington, January 11, 1908.

SIR: I have the honor to transmit herewith, for the consideration of the committee and such action, if any, as may be deemed advisable, copy of a letter from the governor of the United States Naval Home, Philadelphia, Pa., relative to the provisions of the act of May 4, 1898 (30 Stat., 377), requiring persons entering the Naval Home to surrender their pensions while residing therein. The pensions of inmates of the Naval Home are now paid into the naval pension fund, which is used for the support of the Naval Home.

Very respectfully,

V. H. METCALF,
Secretary.

Hon. GEORGE EDMUND FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives.*

GOVERNOR'S OFFICE, UNITED STATES NAVAL HOME,
Philadelphia, Pa., December 6, 1907.

SIR: 1. In reading the last annual report of the governor of the Naval Home, since assuming command here, my attention is particularly attracted to the facts stated and the recommendation made in the seventh paragraph thereof, which I quote below in full:

7. It will be noted since my last report there has been a net decrease of sixteen in membership. The advanced age of the beneficiaries is accountable for the large death rate, but to the small number of those coming into the Home other conditions are responsible. It has come to my notice in several instances that men who are eligible to come here, by reason of civil-war service, are also eligible for admission to the National Volunteer Homes, where they receive not only the benefits of the Home, but their pensions as well. When a man comes to this Home, under the law his pension is required to be turned into the fund from which the Home is maintained. This often works a hardship, especially on those who have dependents.

When a man, receiving a pension, enters a National Volunteer Home or the National Soldiers' Home in Washington—which latter is to the Army what this Home is to the Navy—he not only receives the comforts of the Home but also his pension, either immediately or eventually, or he can dispose of it to the benefit of his family, and in certain instances outdoor relief is extended to nonresident members. Practically the same rules and requirements governing admission to the National Soldiers' Home govern this Home. I can not therefore see why this institution should be thus discriminated against in the matter of pensions to the inmates. I therefore recommend that Congress be asked to confer

on the men who have served the country at sea long and faithfully, or been disabled in its service, the same privileges and benefits when they come to the Naval Home as are enjoyed by the men who have served in the Army when they are admitted to the Soldiers' Home.

2. I have the honor to state to the Department that this discrimination in the laws, allowing pensions to the inmates of the Soldiers' Homes and not to the beneficiaries of this Home, is a great injustice to the men who come here, and I earnestly hope that the Department will use its best endeavors to impress upon Congress the need of legislation that will correct this injustice and give to the men who serve the country at sea every benefit that is now or may hereafter be allowed to the men who serve in the Army.

Very respectfully,

JAMES M. MILLER,
Rear-Admiral, U. S. Navy, Governor.

The SECRETARY OF THE NAVY.

[No. 75.]

**COMMUTATION OF QUARTERS FOR OFFICERS ON SHORE NOT
OCCUPYING PUBLIC QUARTERS—DEPARTMENT LETTER.**

NAVY DEPARTMENT,
Washington, January 17, 1908.

SIR: The act making appropriation for the support of the Army for the fiscal year ending June 30, 1908, approved March 2, 1907, contains a provision as follows:

That hereafter the heat and light actually necessary for the authorized allowance of quarters for officers and enlisted men shall be furnished at the expense of the United States under such regulations as the Secretary of War may prescribe. (34 Stat., 1167.)

Those officers of the Navy whose allowances are assimilated to the allowances of the Army are likewise entitled to the benefit of this provision.

Certain classes of naval officers whose allowances are not so assimilated are, by special legislation, allowed commutation of quarters. The naval appropriation act of March 3, 1901 (31 Stat., 1107), contains a provision:

commutation of quarters for officers on shore not occupying public quarters, including boatswains, gunners, carpenters, sailmakers, warrant machinists, pharmacists, and mates, who shall hereafter receive the same commutation for quarters as second lieutenants of the Marine Corps.

The naval appropriation act approved March 3, 1903 (32 Stat., 1177), makes provision, under the heading "Pay of the Navy," for commutation of quarters for the officers just mentioned "and also naval constructors and assistant naval constructors;" and the same provision is contained in the naval appropriation act for each succeeding year. Officers of the civil engineer corps and professors of mathematics also receive commutation of quarters, these officers by virtue of a clause in the naval act of June 29, 1906 (34 Stat., 555) that—

From and after the passage of this act the allowances of civil engineers and professors of mathematics in the Navy shall be the same as are or may be provided by or in pursuance of law for naval constructors, and the allowances of assistant civil engineers the same as for assistant naval constructors.

It has been held by the Comptroller of the Treasury (14 Comp. Dec. 16) that the allowance of heat and light given by the act of March 2, 1907, above cited, is an allowance separate and distinct from commutation of quarters, and that a grant of the latter conveys no right to the former. Officers of the construction and civil engineer corps, professors of mathematics, warrant officers, and mates are not, therefore, although allowed commutation of quarters, furnished heat quarters. As there would appear to be no adequate reason why they and light at Government expense for their authorized allowance of

also should not be given this allowance, I have the honor to suggest legislation placing them upon the same footing with respect thereto as officers whose compensation is based on that of the Army. This result might be accomplished, it is believed, by the insertion, in the next naval appropriation act, after the words "commutation of quarters" in the appropriation "Pay of the Navy," of a comma and the words "heat, and light;" so that the item would read, "commutation of quarters, heat, and light, for officers on shore not occupying public quarters, including boatswains, gunners, carpenters, sail-makers, warrant machinists, pharmacists, and mates, and also naval constructors and assistant naval constructors."

Very respectfully,

V. H. METCALF,
Secretary.

Hon. GEORGE EDMUND FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives.*

[No. 76.]

**LIMITING THE NUMBER OF CHAPLAINS IN THE UNITED STATES
NAVY—DEPARTMENT LETTER.**

NAVY DEPARTMENT,
Washington, January 27, 1908.

SIR: The receipt is acknowledged of your letters of the 17th instant, inclosing bills (H. R. 10515) "limiting the number of chaplains in the United States Navy," and (H. R. 12907) "to fix the number, status, and compensation of chaplains of the United States Navy," with request for the views and recommendations of this Department with reference thereto.

In reply I have the honor to state that, in view of existing conditions, the Department does not recommend the passage of these bills increasing the corps of chaplains in the Navy, in the one case to twice and in the other to more than four times its present number.

While all vessels of the Navy do not now carry chaplains on board, there are chaplains attached to certain vessels of each fleet and the men of the vessels which do not carry chaplains are not only given every opportunity, but are encouraged to attend worship on board of the vessels which do; in addition, the chaplains themselves visit the other vessels for the purpose of holding services. Should the Department consider inadequate the number of chaplains afloat, it is reported by the Bureau of Navigation that practically all of those now on shore duty could be ordered to sea, inasmuch as the enlisted men at the navy-yards and stations, or attached to receiving and station ships, can readily attend services at churches adjacent to their stations; and, besides, the local ministers and societies usually welcome an opportunity to hold services at the navy-yards or on board of vessels at the yards.

Furthermore, as stated by my predecessor in his annual report for 1905 (p. 12) chaplains on our ships of war should usually be young men, capable of taking an interest in the sports of the enlisted force, "ready to advise them in their difficulties, anxious to compose their quarrels, and able to exercise upon them the great, though indirect, influence arising from interest in their affairs and sympathy with their troubles on the part of a person whose character and conduct commands their respect and whose position entitles him to deference." For this reason, if it should be decided by the Congress that more chaplains are required for service in the Navy, it is not considered desirable that the permanent force be increased, but I should, rather, recommend the passage of a provision authorizing the appointment of a temporary force, whose members would serve for a period of five years and from the more successful of whom vacancies in the permanent corps could be filled as they might occur.

Reverting to the provisions of the bills referred by you, it is noted that references are made in H. R. 10515, to "relative rank." In this

connection attention of the committee is invited to section 7 of the Navy personnel act (30 Stat., 1005), providing that "all sections of the Revised Statutes which, in defining the rank of officers or positions in the Navy, contain the words 'the relative rank of' are hereby amended so as to read 'the rank of.'"

H. R. 12907. The statement contained in the preamble, that "only eight of the twenty-four chaplains allowed by law can now be spared * * * for duty on sea going ships," would seem to be incorrect in view of the report of the Bureau of Navigation, above referred to, that, if considered advisable to have more chaplains afloat, "practically all of those now on shore duty could be ordered to sea." I might add that the provision of section 3 of this bill, that the uniform of chaplains shall hereafter be the same as "provided by or in pursuance of law for other seagoing officers of the same rank," is not approved by the Department, being contrary to the present practice and obviously inappropriate.

Very respectfully,

V. H. METCLAF,
Secretary.

HON. GEORGE EDMUND FOSS,
Chairman Committee on Naval Affairs.
House of Representatives.

[No. 77.]

**FOR THE RELIEF OF HARRY KIMMELL, A COMMANDER ON THE
RETIRED LIST OF THE UNITED STATES NAVY—DEPARTMENT
LETTER.**

NAVY DEPARTMENT,
Washington, March 4, 1908.

SIR: The receipt is acknowledged of your letter of the 25th ultimo, inclosing a bill (H. R. 17214) for the relief of Harry Kimmell, a commander on the retired list of the United States Navy, and requesting the views and recommendations of the Department thereon.

The Department does not recommend favorable action on the proposed legislation for the following reasons given by the Chief of the Bureau of Navigation, which are concurred in:

Commander Kimmell's position on the navy list prior to the date of his retirement was next after Commander Frederic C. Bieg, U. S. Navy. Commander Kimmell was transferred to the retired list on June 30, 1905, upon his own application, in accordance with the provisions of section 8 of the act of Congress approved March 3, 1899.

The Bureau is firmly of the opinion that it is inadvisable to restore to the active list of the Navy officers who have been retired. The occasional benefits of such restoration by special legislation is more than offset by the discontent of the officers who generally lose numbers and position on the list in coming back, and by the unrest that is engendered among those over whom the officers so restored are put. The officers so overslaughed have probably had additional duty or undesirable details because of such retirements, and they will also lose in possibilities for duty and command by each officer restored. A great many of the officers who availed themselves of the privilege of voluntary retirement during the last three years have by such retirements avoided a tour of sea duty, thus compelling the officers remaining on the active list to remain at sea with very little prospect for shore-duty assignment. To restore an officer to the active list who has avoided some of the disagreeable services of the Navy by retirement, and to place him above the other officers who have been compelled to perform such duties, is certain to be the cause of a great deal of discontent, which will more than offset any advantages that may accrue from such retirement.

As in the present case, the officer seeking restoration to the active list in a command grade after being on the retired list for nearly three years, and consequently missing the active duty afloat in the lower grade, has failed to receive just that amount of experience, and disqualifies him to that extent for the responsibilities of a command afloat. At the present time, when the improvements in naval armament are progressing so very rapidly, this period amounts to a great deal in an officer's career.

Very respectfully,

V. H. METCALF,
Secretary.

The CHAIRMAN COMMITTEE ON NAVAL AFFAIRS,
House of Representatives.

[No. 78.]

**BRONZE MEDALS FOR OFFICERS AND MEN OF THE NAVY AND
MARINE CORPS—DEPARTMENT LETTER.**

NAVY DEPARTMENT,
Washington, February 28, 1908.

SIR: By joint resolution approved March 3, 1901 (31 Stat., 1465), the Congress authorized the Secretary of the Navy to cause to be struck bronze medals commemorative of the naval and other engagements in the waters of the West Indies and on the shores of Cuba during the war with Spain, and to distribute them to the officers and men of the Navy and Marine Corps who participated in any of said engagements deemed by him of sufficient importance to deserve commemoration.

There are a number of engagements and campaigns other than those contemplated by the statute above mentioned in which officers and men in the Navy and Marine Corps have rendered gallant service meriting recognition, but with respect to which no provision for the award of a suitable badge or medal has been made. As instances of this character, the campaigns in the Philippine Islands and in China during the Boxer outbreak several years ago may be cited.

In view of the foregoing, I have the honor to recommend that there be inserted in the naval appropriation bill now in preparation a clause placing at the disposal of the Secretary of the Navy the sum of \$3,500 for the purchase of badges and ribbons to be distributed to the officers and men of the Navy and Marine Corps who have taken part in such campaigns as he may, in his discretion, designate for such commemoration. As indicated by the small amount requested, the badges which it is desired to procure are simple and inexpensive—essentially similar to the campaign badges issued in the Army.

There is inclosed herewith for the convenience of the committee the draft of a clause designed to accomplish the purpose intended.

Very respectfully,

V. H. METCALF, *Secretary.*

Hon. GEO. EDMUND FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives.*

[Draft of clause recommended for insertion in naval appropriation bill.—To accompany Navy Department letter No. 3982-7 of February 28, 1908.]

For badges and ribbons to be distributed by the Secretary of the Navy to officers and men of the Navy and Marine Corps who have participated in engagements and campaigns deemed worthy of such commemoration, three thousand five hundred dollars, to be available until used.

(817)

No. 79.

**REPORT OF THE SUBMARINES BY THE COMMANDER OF THE
SECOND SUBMARINE FLOTILLA—DEPARTMENT LETTER.**

NAVY DEPARTMENT,
Washington, D. C., March 5, 1908.

SIR: In response to your request by telephone received this morning:

The Bureau forwards herewith a copy of the report of the submarines by the commander of the second submarine flotilla relative to the trip of the submarines *Viper*, *Cuttlefish*, and *Tarantula* from New York to Annapolis.

Very respectfully,

J. E. PILLSBURY,
Chief of Bureau.

HON. GEORGE E. FOSS, M. C.,
Chairman House of Naval Committee,
House of Representatives.

U. S. S. HIST,
Annapolis, Md., February 25, 1908.

SIR: 1. I have the honor to make the following report of the trip of the Second Submarine Flotilla from New York to Annapolis:

2. The *Viper* and *Cuttlefish* were undocked on 13th instant, after straightening propeller blades, which were bent by ice. Weather conditions were unfavorable, with strong easterly breezes until the 16th instant. At 10 a. m. of that date storm signals were hauled down and the flotilla left the New York Navy-Yard at 12.30 p. m. The weather report indicated fair weather, with westerly breezes of about 20 miles per hour.

3. At 2.20 p. m. the flotilla arrived at Sandy Hook and started down the coast with the *Hist* leading and the other boats in the following positions: The *Viper* and *Tarantula* on either quarter and the *Cuttlefish* directly astern. It was found difficult to keep this formation, and the boats simply followed the *Hist*. The *Cuttlefish* proved to be the slowest boat, and the speed of the *Hist* was regulated to that of the *Cuttlefish*.

4. At 8.30 p. m. the breeze was fresh from southwest and the flotilla close into the Jersey coast to get the shelter of the land. The boats were rolling moderately and the crews suffered some from seasickness. The *Tarantula* and *Viper* were running under greatly reduced power, while the *Cuttlefish* was always holding back. At 11 p. m. the flotilla was off Absecon light, when the *Cuttlefish* dropped rapidly astern. The flotilla was stopped and the *Hist* returned to the *Cuttlefish*. The *Cuttlefish* reported trouble with timing device of engine. At 12.20 a. m. Monday, the 17th, the

Cuttlefish went ahead, reporting five out of six cylinders operating. The weather was clear, with bright moonlight, gentle breezes from southwest, and only moderately cold, temperature 36. At 1 a. m. the *Cuttlefish* stopped again and reported that the propeller pitch had slipped. Later that the engine would not make the necessary revolutions even after the pitch was set up. At 1.15 a. m. went ahead at 7 knots, the *Cuttlefish* dropping rapidly astern. Waited until 1.45 a. m., when Lieutenant Marquart, commanding the *Cuttlefish*, reported that his engine would make only half the necessary revolutions, with no load on; that is, with the propeller clutch out. Later on the engine refused to run at all. Although the wind was quite strong from the southwest, we had a good lee, and I decided that it would be better to give the crew of the *Cuttlefish* a chance to find out what was the matter than to take her in tow. At 4 a. m. Lieutenant Marquart signaled that he had found out the difficulty. The induction pipe, through which the fuel mixture passes after carburization, had been clogged with ice, permitting no fuel to get to the engine. At 4.45 a. m. the *Cuttlefish* reported all ready and the flotilla went ahead at 7 knots speed. At 5 a. m. the *Cuttlefish* signaled that two spark plugs would have to be replaced, and stopped. At the Delaware encountered moderate sea and a long swell, which caused the boats to plunge and rise. The commanding officers reported that the crews were all right except for seasickness. In spite of their seasickness the crew of the *Cuttlefish* kept at their work. After passing Five Fathom Bank light-vessel at 8.20 a. m. the *Cuttlefish* was going very slowly, and Lieutenant Marquart reported that he had only four cylinders. I stopped the flotilla and sent the leading petty officers, machinists, and electricians from the *Tarantula* and *Viper* to the assistance of the *Cuttlefish*. These men remained on the *Cuttlefish* the rest of the day. At 10.15 a. m. the *Cuttlefish* reported that the difficulty had been with a worn-out timer upon which temporary repairs had been made, and the flotilla went ahead at 7.5 knots speed until 10.50 a. m. After a short stop went ahead until 11.15 a. m., when the *Cuttlefish* stopped. At 11.25 a. m. the *Cuttlefish* went ahead in fine style and all the boats were making 8.5 knots. There was a moderate sea on from the west-northwest. Reached Fenwick Island Shoal and went in to the beach to get the lee. The temperature was 35°. Made a fine run all afternoon, the *Cuttlefish* going at times over 9 knots. Reached Assateague at 5 p. m., and the *Viper* reported that the last time they stopped that they had lost one cylinder. These frequent stops had been very hard on the other two boats. Their engines had to be kept running all the time. If they should be stopped there was danger of a leaky cylinder on starting. The *Viper* signaled that they had been running under five cylinders all afternoon, not having been able to get the sixth since the last stop. The boat made good speed, but there seemed a good chance to increase the flotilla speed from 7.5 knots to 9, if the *Viper* were given a chance, as this was her first mishap. The flotilla was stopped and at 6.30 p. m. Lieutenant Bingham reported that the difficulty was that an induction coil was burned out and that the boat would have to continue under five cylinders. The *Tarantula* and *Viper* men were returned to their boats. The *Cuttlefish* was unable to get going well, and stopped off Hog Island at 10 p. m. Went ahead again at midnight, and at 1.15 a. m. Tuesday the

Cuttlefish signaled that they had to stop to put in spark plugs. Arrived at Cape Charles light-vessel at 1.45 a. m.

At 4 a. m., while entering Hampton Roads, the *Cuttlefish* suddenly dropped rapidly astern. The *Viper* continued on to the Tail of the Horseshoe to charge batteries, and the *Hist* and the *Tarantula* returned to find out what was the matter. Lieutenant Marquart reported that they could not get gasoline to the carburetter, and proceeded in under the engine to Lynnhaven Roads. The *Tarantula* joined the *Viper* at the Tail of the Horseshoe and charged batteries. At 7.20 a. m. the *Viper* and *Tarantula* were recalled and the *Hist's* boat took the leading men to the *Cuttlefish*. The officers reported their crews in good shape and anxious to put the trip through. At 10 a. m. Lieutenant Daniels, who was with the boats when building, went to the *Cuttlefish* and although he had been up constantly meeting and overcoming the difficulties met with in his own boat, spent the rest of the day in the *Cuttlefish*, advising and directing the work, with Lieutenant Marquart, of finding out the trouble. I went over to the *Cuttlefish*, and found that although no one knew what the trouble was, there was no intention of giving up. At 1 p. m. it was discovered that the auxiliary gasoline suction valve was off its seat. This trouble was remedied, and Lieutenant Marquart reported that they could get only three cylinders. The battery was down to the lowest safe limit and their gasoline was also down to 460 gallons. He then requested permission to take off a cylinder head to make a new gasket, which was a two-hour job. This would make a delay of five hours at least before the *Cuttlefish* had her engine and battery in condition to continue. The *Viper* and *Tarantula* were in favor of continuing to Annapolis, as they had not yet had their anchors down and felt able to finish the trip. The weather was fine, and I took the *Cuttlefish* in tow at 5.30 p. m. and stood up Chesapeake Bay. Off Old Plantation's light slowed down to wait for the *Tarantula*. The *Tarantula* was keeping up and at the same time charging batteries, without slacking off the pitch of the propeller. This brought too big a strain on the gaskets and two of them blew out. The repairs required two hours. When they were made the *Tarantula* came on at over nine knots. The *Viper* about 9 p. m. passed on ahead. It was a fine night, with bright moonlight. At 1 a. m. Wednesday passed Smith Point, at the mouth of the Potomac, and was rejoined by the *Tarantula*. A short time afterward the *Tarantula* was slowed down by the freezing of her induction pipe. At 3 a. m. the weather conditions changed and a snow storm from the eastward set in. At 4 a. m. picked up Cedar Point light abeam and was unable to tell how far off it was. At 4.40 a. m. grounded on a sand spit off Cove Point light-house. The grounding will be reported in a separate report. The *Viper*, which had touched on the same point an hour before in a snow storm, passed on to meet fog and rain, and while floating around the tide took the vessel on a shoal at Thomas Point light. The *Cuttlefish* was in tow of the *Hist* and also grounded, but blew out water in after trimming tank and got off at once. Later on, while the wind was blowing the *Hist* further in toward the shore, the *Cuttlefish* and *Tarantula* steamed in close and made a fine effort to assist. The *Hist* sent out a boat with a line from the quarter which had to beat against a strong wind, sea and rain and could not get far. Upon my signal for assistance both boats, which are most difficult to handle on the surface in a

seaway, and which have to shift from the gasoline engine to the motor to back, steamed in close and missed the boat with the line from the *Hist*. The *Tarantula* then came in very close and got the *Hist's* line. Just as the line was gotten on board the *Tarantula* the vessel touched the ground. Lieutenant Daniels immediately backed and the line was fouled in the propeller. The boat then took a line out to the *Cuttlefish*, which towed the *Tarantula* off. A line had been gotten to the *Cuttlefish* and she attempted to pull the *Hist* off, but the vessel had no place to make the line fast and could not be handled. The *Standish* arrived about 5 p. m. and made an unsuccessful attempt to pull the vessel off. The water was high at the time and the chances of pulling off the *Hist* with the *Standish* were lost by going ahead too fast and snapping the hawser. On Thursday the wind shifted to west and blew out about two feet of water from under the ship. The *Cuttlefish*, which was anchored with the *Tarantula* during the night of Wednesday-Thursday, went to Annapolis under her own power about 5 p. m. The *Tarantula*, which was running nine knots at the time of the accident to the *Hist*, was towed to Annapolis by the *Standish*. The vessel was in good shape, but Lieutenant Daniels volunteered to stay with me and look out for the *Hist*. The *Viper* was pulled off the beach on Friday afternoon by the revenue-cutter *Apache*. The *Des Moines*, which arrived on the 21st, tried to pull us off at 4 p. m. on the 21st, but the direction of pull was unfavorable and nothing was accomplished. The *Apache* offered assistance on the 23d, but the wind had driven out the water and there was only 6 feet under the *Hist*. At 3.50 p. m. on the 23d, on a high tide following an easterly blow, the *Hist* was easily floated without much effort, although there were four vessels ready to tow two hours later. The *Hist* was uninjured.

5. In conclusion, while regretting the unfortunate grounding of the *Hist*, which ruined the trip for the *Viper* and *Tarantula*, I am able to report that, in the opinion of the officers of the flotilla, many valuable lessons have been taught that could have been obtained in no other way, and much additional information obtained about the boats. The *Viper's* crew lived in the boat six days, subsisting themselves, and the *Cuttlefish* and *Tarantula's* crew about four and one-half days.

The engines were in operation as follows: *Viper* fifty-eight hours, *Cuttlefish* sixty hours, *Tarantula* fifty-two hours. The engines have 11-inch cylinders and are supposed to be the largest gasoline engines afloat. While they are satisfactory for light work, such as running out from a dock and back again, it is an open question as to whether they are fitted for such work as they have been called upon to do. Reports will be made upon the subject by the commanding officers, and it is probable that the Department will decide that certain changes should be made before similar ones are installed in the boats contracted for. While the experience of the crews has not been long, it has been most extensive, and I feel that there are few men in the country who have a better working knowledge of this type of engine. Great credit is due the *Viper* and *Tarantula* for such excellent work, because every time they stopped to wait for the *Cuttlefish*, or slowed down, there was danger of spark plugs getting wet and cylinders leaky, which would prevent the engines from starting again. The efforts of the *Cuttlefish* were not attended by

much success, but for dogged tenacity were remarkable. To work at sea from 11 p. m. to 4 a. m. in a disabled boat, to find that the induction pipe was frozen, and then to complete the trip to Hampton Roads after a bad timer had developed, causing the boat to stop frequently, and then to work for twenty-one hours in the bay, and get everything in shape, and ask to cast off the tow line at midnight Tuesday, and finally to make the last 40 miles under their own power, showed good staying qualities. Despite the hardships and the bad luck which overwhelmed the flotilla at the last moment, the spirit of the men and officers is undiminished. While the men suffered some from seasickness, only one man was sent to the hospital from the effects of the trip.

Very respectfully,

C. E. COURTNEY,
Lieutenant, U. S. Navy,
Commanding Second Submarine Flotilla.

The SECRETARY OF THE NAVY.

[No. 80.]

DEPARTMENT OF THE NAVY,
BUREAU OF NAVIGATION,
Washington, D. C., March 7, 1908.

**ITEMIZED STATEMENT OF PAY OF THE NAVY—DEPARTMENT
LETTER.**

SIR: The Bureau has the honor to transmit herewith a memorandum containing certain data which the chairman of the Committee on Naval Affairs of the House of Representatives requested the Paymaster-General of the Navy to procure for him. The queries on matters which pertained to the Bureau of Navigation were transmitted by the Paymaster-General to that Bureau and were as follows:

(A) A copy of the law under which the President fixes the pay of enlisted men of the Navy (this is Rev. Stat., sec. 1569), with any history concerning this law that could be given.

(B) An itemized statement of Pay of the Navy, the items to be in general terms as those stated in the Book of Estimates and carried out to whatever extent the Bureau of Navigation could without putting itself to too much inconvenience. The main point that he wanted separated, though, was that the numbers of officers in general, midshipmen at sea after graduation and warrant officers, should be separately stated. Also how many warrant officers there are of each kind and a brief statement as to their value to the service.

(C) All items of extra pay, such as 75 cents for bars and the extra pay for good-conduct medals, etc.

(D) A brief statement of the last general raise of pay for enlisted men of the Navy and what increases or decreases were made at that time.

(E) The number of petty officers of all classes in the service and a statement of about how many petty officers there are to each man.

In preparing its reply the Bureau has treated of the subjects upon which information is desired in the above order.

Very respectfully,

J. E. PILLSBURY,
Chief of Bureau.

The CHAIRMAN OF THE COMMITTEE ON NAVAL AFFAIRS,
House of Representatives, Washington, D. C.

(A) Section 7 of the act of March 27, 1794, first authorized the President of the United States to fix the pay which should be allowed to petty officers, ordinary seamen, seamen, and marines. An act of July 1, 1797, contains the same authorization. The act of April 18, 1814, provides that the pay and bounty upon enlistment of seamen, ordinary seamen, and marines shall be fixed by the President of the

United States. The act of March 3, 1847, provides that the pay of firemen and coal heavers employed in the naval service shall hereafter be fixed by the President in the same manner as is now provided by law for the pay of other petty officers, seamen, ordinary seamen, and marines.

These provisions of law are now included in section 1569 of the Revised Statutes, which is as follows:

The pay to be allowed to petty officers, excepting mates, and the pay and bounty upon enlistment of seamen, ordinary seamen, firemen, and coal heavers, in the naval service shall be fixed by the President: *Provided*, That the whole sum be given for the whole pay aforesaid, and for the pay of officers and for the said bounties upon enlistments shall not exceed, for any one year, the amount which may, in such year, be appropriated for such purposes.

(B) An itemized statement of the pay of the Navy for the fiscal year ending June 30, 1909, will be found on page 596 (Appendix L), Estimates of Appropriations.

From an inspection of the above it will be seen that it includes the following estimates:

No.		Pay per annum.	Total.
385	Midshipmen (performing duty at sea).....	\$650	\$365,750
4	Chief boatswains (ensigns after 20 years' service).....	1,900	7,940
3	Chief boatswains (fourth 5 years).....	1,830	5,490
36	Chief boatswains (third 5 years).....	1,680	60,480
37	Chief boatswains (second 5 years).....	1,540	56,080
2	Chief boatswains (second 5 years) (beyond seas).....	1,604	8,338
61	Boatswains (second 3 years).....	1,300	79,800
39	Boatswains (first 3 years).....	1,200	46,800
182	Total boatswains.....		260,248
5	Chief gunners (ensigns after 20 years' service).....	1,900	9,900
7	Chief gunners (fourth 5 years).....	1,830	12,740
28	Chief gunners (third 5 years).....	1,680	47,040
1	Chief gunner (third 5 years) (beyond seas).....	1,848	1,848
33	Chief gunners (second 5 years).....	1,540	50,880
40	Gunners (second 3 years).....	1,300	52,000
54	Gunners (first 3 years).....	1,200	64,800
168	Total gunners.....		239,048
11	Chief carpenters (ensigns after 20 years' service).....	1,900	21,500
1	Chief carpenter (fourth 5 years).....	1,830	1,830
24	Chief carpenters (third 5 years).....	1,680	40,320
1	Chief carpenter (third 5 years) (beyond seas).....	1,848	1,848
22	Chief carpenters (second 5 years).....	1,540	33,880
34	Carpenters (second 3 years).....	1,300	44,800
33	Carpenters (first 3 years).....	1,200	45,600
181	Total carpenters.....		189,228
6	Chief sailmakers (ensigns after 20 years' service).....	1,900	11,760
70	Warrant machinists (fourth 3 years).....	1,600	112,000
37	Warrant machinists (third 3 years).....	1,400	51,800
73	Warrant machinists (second 3 years).....	1,300	94,900
70	Warrant machinists (first 3 years).....	1,200	84,000
250	Total warrant machinists.....		342,700
16	Pharmacists (fourth 3 years).....	1,600	25,600
3	Pharmacists (third 3 years).....	1,400	4,200
3	Pharmacists (second 3 years).....	1,300	3,900
2	Pharmacists (first 3 years).....	1,300	2,600
94	Total pharmacists.....		36,300
66	Mates (since August 1, 1864).....	600	59,400
	Grand total.....		1,504,294

WARRANT OFFICERS.

Warrant officers are boatswains, gunners, carpenters, sailmakers, warrant machinists, and pharmacists. They are appointed by the Secretary of the Navy from enlisted men who have served continuously for a period of years, have reached the grade of chief petty officer or first-class petty officer, and whose efficiency reports, together with their examination papers, show them worthy of such advancement.

BOATSWAINS.

The boatswain on board of a vessel is an assistant to the executive officer and has immediate charge of all equipment stores and is responsible for their care and issue. He must be an efficient seaman and understand thoroughly how to handle and secure heavy weights, such as anchors and chains, boats, etc. A boatswain is regarded as a necessary part of the complement of naval vessels. There are 147 boatswains at present on the active list of the Navy.

GUNNERS.

The gunner of a ship is an assistant to the ordnance officer, has immediate charge of all ordnance stores, and is responsible for their care and issue. He must understand the working of all parts of the battery and be able to make the minor repairs needed. He inspects daily the magazines and makes the required examinations and tests of their contents. An officer to perform these duties is necessary. There are at present 120 gunners on the active list of the Navy.

CARPENTERS.

The carpenter of a ship is an assistant to the executive officer, especially in all that relates to the latter's work as construction officer. He has immediate charge of all construction stores and is responsible for their care and issue. He must be familiar with the regulations concerning the care, preservation, and repair of ships, and supervise the work done by the mechanics placed under him. He is responsible for the good condition of all pumps, pipes, drains, and valves in the construction department, as well as the capstans, windlasses, steering apparatus, winches, etc. He assists the executive officer in the inspection and care of all compartments, water-tight doors, air ports, hatches, double bottoms, and mechanical devices for the management and safety of the ship. An officer to perform the above duties is necessary. There are at present 105 carpenters on the active list of the Navy.

SAILMAKERS.

With the passing of the sail era the necessity for sailmakers on board of modern men-of-war has ceased. They are at present only employed at naval stations. There remain but 6 sailmakers upon the active list of the Navy.

WARRANT MACHINISTS.

Warrant machinists act as assistants to the engineer officers of the ship in all that relates to the care and management of machinery and boilers and their appurtenances. They stand a regular engine-room watch. When the Engineer Corps was merged into the line of the Navy the necessity for men of this class was created. There are 200 warrant machinists, at present, on the active list of the Navy.

PHARMACISTS.

The title explains their duties. They are employed at naval stations and hospitals. There are 24 pharmacists on the active list of the Navy.

The pay of officers on the active list is estimated by computing the probable pay of officers who will be on duty, at sea, on shore, or on shore duty beyond seas during the fiscal year 1909. In arriving at this amount the retirements and promotions which will occur during the next fiscal year, so far as it is possible to determine them, have been taken into consideration. See Appendix (p. 596), Book of Estimates.

The estimate of commutation of quarters is arrived at by deducting from the amount necessary for the commutation of quarters for officers on shore, the actual quarters available for their occupancy.

The quota of midshipmen allowed by law at the Naval Academy is 997. The estimate for the number of midshipmen who will be under instruction during 1909 is placed at 950, as a certain percentage of vacancies caused by resignation, failure to qualify mentally and physically, etc., will exist.

The estimate of pay of officers on the retired list is made up by taking the amount required for this purpose during the previous year, deducting the pay of officers who have died, and adding to this sum the pay of officers who, so far as can be determined, will be placed upon the retired list during the fiscal year 1909, for which the present estimate is made.

The estimate for extra pay of retired officers who are performing active duty is based on the difference between their retired pay and active-duty pay.

For detailed estimate of pay of clerks see page 597 of Book of Estimates.

Apprentice seamen are paid at the rate of \$16 per month. The annual pay of 2,500 apprentice seamen at this rate amounts to \$480,000.

The pay of the enlisted men on the retired list is made up on the basis of an average rate of \$48 monthly for men on the retired list. It is estimated, therefore, that the sum of \$116,352 will be required for the payment of the 202 men on the retired list.

It is estimated that the amount required for the payment of interest on deposits by enlisted men will be about \$44,000.

To estimate for the pay of enlisted men, an effort was made previous to the appropriation for the fiscal year of 1908 to base the amount required on the average cost of one enlisted man. The amount actually expended on the men of each ship and station was

after much labor calculated, and to the result was applied a correction to cover, at the estimated rate of reenlistment, the extra expense in gratuities, continuous service, and reenlistment pay, good-conduct badges, extra money to seaman gunners, extra pay to ratings on new ships commissioned, increasingly large sums to stimulate target practice, etc.; in fact, the items of extra pay on page 12 explains the possible additions. The amount so determined was about \$30.

The estimate for the pay and allowances of 39,000 enlisted men for the fiscal year ending June 30, 1909 (\$15,444,000), is based on an individual average pay of \$33 per month per man. This is an increase of \$3 per month per man over the estimates of previous years, due to the following cause, as previously outlined:

(1) The increase in the number of men holding good-conduct medals, each of which entitles the possessor to 75 cents per month additional pay.

(2) The increase in the number of men reenlisting under continuous service. Each enlistment of this character carries with it an increase of pay of \$1.36 per month and a gratuity or bonus of four months' extra pay, provided the man enlists within four months after expiration of last enlistment. This bonus varies from a sum of about \$76 for a reenlistment in a low rating to an amount of \$360 or over, which would be received by a chief petty officer reenlisting after already having served three or more enlistments.

(3) The growing number of men who have completed the prescribed course of instruction for seaman gunners or petty officers, which entitles them to receive \$2 per month in addition to the pay of the rating in which they are serving.

(4) By Executive order of November 27, 1906, the pay prescribed for each rating in the Navy was increased \$5 per month during the first reenlistment and a further sum of \$3 per month during subsequent periods of service.

For the current fiscal year the Bureau estimated as necessary for the pay of the Navy \$23,643,117, which included the pay and allowances of 37,500 petty officers, seamen, and other enlisted men, based on a monthly pay of \$30 per month per man. Congress allowed, however, but 36,000 men, and the estimate necessary for the pay of the Navy was calculated by the Bureau, in view of this reduction, as \$23,103,117. The appropriation was reduced by Congress from this estimate to the sum of \$21,000,000, and as the expenditures, so far as can now be determined, are running between five and one-half and five and three-quarters millions per quarterly period of three months, a further appropriation of from \$1,000,000 to \$2,000,000 will be necessary.

The Bureau's estimate of \$30 per month per man, the basis on which the pay of enlisted men was calculated prior to the estimate for 1909, would seem to be nearly correct; but the reenlistments of the seven months from July 1, 1907, to February 1, 1908, number 2,455, which is a greater number than has ever previously been enlisted in any period of twelve months. This is so far beyond the normal number expected that a further sum of \$3 per month was the amount calculated as necessary to provide for the average cost of one man. As the service grows in years and in numerical strength a proportionate increase in the average pay per man must of necessity result. It is very

desirable to retain trained men in the service, but the greater the percentage of reenlistment, the greater the expense—that is, the longer a man remains in the Navy the greater is his cost to the Government.

(C) A complete statement of allowances and extra pay for enlisted men is contained in the following extract from the Navy Pay Table:

1. Petty officers of the Navy, performing duty which deprives them of quarters and their rations or commutation thereof, shall receive \$9 per month in addition to the pay of their rating. (Art. 1243, par. (5), N. R., 1905.)

2. Subsistence furnished to enlisted persons attached to ships of the Navy, when unavoidably detained on shore, under orders, or absent, by authority, for one day or more from the ship to which attached, must be charged to appropriation "Provisions, Navy." During the time of such subsistence their rations shall be stopped on board ship, and no credit for commutation therefor shall be given. (Art. 1582, par. (1), N. R., 1905.)

(a) When such authorized absence is for less than one day, and ration is not checked on pay roll, cost of subsistence shall be paid on sundry service voucher, under appropriation "Pay, Miscellaneous." (See Compt. Dec., Dec. 9, 1907.)

3. Men that have successfully completed a prescribed course of instruction for seamen gunners or petty officers may be given, by the Bureau of Navigation, a certificate to that effect, which shall entitle them to receive \$2 per month in addition to the pay of the rating in which they are serving; such certificates to continue in force only during the enlistments in which the men were respectively graduated, unless renewed by reenlistment for four years within four months from date of honorable discharge. This provision shall take effect from and after July 1, 1905, but any enlisted man then in the service that holds such a certificate shall not be deprived of the benefits of the same during the term of enlistment under which he is then serving. Men holding certificates as seamen gunners are entitled to the pay prescribed for said rating and are entitled to reenlist at any time as such at the base rate of \$26 per month; but if given any other rating than that of seamen gunner, the holder of a seaman gunners' certificate will not receive additional pay therefor, unless in continuous service. (Arts. 864 and 865, N. R., 1905.)

4. Each enlisted man of the Navy shall receive 75 cents per month, in addition to the pay of his rating, for each good-conduct medal, pin, or bar which he may heretofore have been, or shall hereafter be, awarded. On and after September 5, 1904, the date of the award of a good-conduct medal, pin, or bar shall be the date of the holder's discharge by reason of the expiration of the enlistment for which the medal, pin, or bar is given, the allowance of 75 cents per month to be reckoned from said date of award: *Provided*, That nothing herein contained shall be construed to authorize any change in the date of award of any good-conduct medal, pin, or bar heretofore awarded or to grant any arrears of allowances on account thereof. (Art. 1257, par. (2), N. R. 1905.) (See Compt. Dec., Sept. 29, 1906.)

5. Coxswains detailed as coxswains of boats propelled by machinery, or as coxswains to commanders in chief, shall receive \$5 per month in addition to their pay. (General Orders, No. 20, Jan. 20, 1901.)

6. All enlisted men of the Navy shall receive \$5 per month in addition to their pay while serving on board of submarine vessels of the Navy. Besides the \$5 per month extra pay allowed them for submarine service, enlisted men serving with submarine torpedo boats, and having been reported by their commanding officers to the Navy Department as qualified for submarine torpedo boat work, shall receive \$1 additional pay for each day during any part of which they shall have been submerged in a submarine torpedo boat while under way: *Provided*, *however*, That such further additional pay shall not exceed \$15 in any one calendar month. (General Orders, No. 9, Nov. 9, 1905.)

7. Seamen in charge of holds shall receive \$5 per month in addition to their pay. (General Orders, No. 20, Jan. 20, 1901.)

8. Ordinary seamen detailed as jacks-of-the-dust, or as lamplighters, shall receive \$5 per month in addition to their pay. (General Orders, No. 178, Nov. 29, 1904.)

9. Enlisted men detailed as crew messmen shall, while so acting, except when assigned as reliefs during the temporary absence of the regular crew messmen, receive extra compensation at the rate of \$5 per month. (General Orders, No. 61, Oct. 17, 1901, and General Orders, No. 79, Jan. 7, 1902.)

10. Enlisted men afloat detained beyond their regular term of enlistment until the return to the United States of the vessel to which they belong, under

the provisions of section 1422 of the Revised Statutes, shall receive for the time during which they are so detained an addition of one-fourth of their former pay, "computed on the total pay which they are entitled to receive." (Art. 1196, N. R., 1905.)

11. Seamen and ordinary seamen detailed for duty as firemen or coal passers shall receive in addition to the pay of their ratings extra pay at the rate of 33 cents per day for the time so employed. (Art. 1197, N. R., 1905.)

12. Enlisted men of the naval service regularly detailed as signalmen shall receive the following extra compensation in addition to the monthly pay of their rating: Signalmen, first class, \$3; signalmen, second class, \$2; signalmen, third class, \$1. (General Orders, No. 110, Oct. 22, 1902.)

13. All chief petty officers of the Navy whose pay is not fixed by law, including chief water tenders, who, on or after July 1, 1903, shall receive permanent appointments after qualifying therefor, shall be paid at the rate of \$70 a month; those who serve under permanent appointments issued prior to said date, or under acting appointments, shall be paid at the rates now in force. The pay of chief water tenders who hold acting appointments shall be \$50 a month. (General Orders, No. 134, June 26, 1903.)

14. After October 1, 1903 (Executive order, July 25, 1903), enlisted men of the Navy, after having qualified as gun pointers, and who are regularly detailed as gun pointers by the commanding officer of the vessel, shall receive monthly, in addition to the pay of their respective ratings, extra pay as follows:

Heavy gun pointers:	
First class.....	\$10
Second class.....	6
Intermediate gun pointers:	
First class.....	8
Second class.....	4
Secondary gun pointers:	
First class.....	4
Second class.....	2

(a) Extra pay, except as given under General Orders, No. 57 (see below), shall be allowed a qualified gun pointer during not less than two years from and after the date of his qualifying, but only while he is regularly detailed as a gun pointer at a gun of the class at which he qualified. (Art. 1257, par. (3), N. R., 1905.)

(b) "The extra pay allowed gun pointers in accordance with Executive order of July 25, 1903 (see above), shall be allowed a gun pointer regularly detailed as a gun pointer of the class at which he qualified only as long as he remains qualified: *Provided*, This order shall be construed as affecting only gun pointers who qualify subsequent to November 28, 1907." (General Orders, No. 57, Dec. 9, 1907.)

15. Enlisted men of the Navy regularly detailed by the commanding officer of a vessel as gun captains, except at secondary battery guns, shall receive, in addition to the pay of their respective ratings, \$5 per month, which, in the case of men holding certificates as gun captains, or of graduation from the gun-captain class, petty officers' school, shall include the \$2 per month to which such certificates entitle them. (General Orders, No. 137, July 25, 1903.) (Art. 1257, par. (4), N. R., 1905.)

16. Any enlisted man of the Navy detailed to perform the duties of "ship's tailor" on board of a vessel having a complement of 600 men or more, exclusive of marines, shall receive \$20 per month in addition to the monthly pay of his rating; on a vessel having a complement of from 300 to 600 men, exclusive of marines, \$15 per month in addition to the monthly pay of his rating; on a vessel having a complement of less than 300 men, exclusive of marines, \$10 per month in addition to the monthly pay of his rating. Any enlisted man of the Navy detailed as "tailor's helper" on board of a vessel having a complement of 600 men or more, exclusive of marines, shall receive \$10 per month in addition to the monthly pay of his rating: *Provided*, That the total pay of an enlisted man detailed to perform the duties of "ship's tailor" shall not exceed \$50 per month, and of "tailor's helper" shall not exceed \$40 per month. (General Orders, No. 186, June 5, 1905.)

17. To provide adequate compensation for trained men, the pay now prescribed by Executive Order for each rating in the Navy is hereby increased \$5 per month during the first period of service and a further sum of \$3 per month during each and every subsequent period of service: *Provided*, That only en-

listed men who are citizens of the United States, and whose second and subsequent periods of service each follow next after service in the Navy that was terminated by reason of expiration of enlistment, shall receive the benefits of the increased pay named herein: *Provided further*, That in the cases of men who are or were finally discharged from the Navy by reason of expiration of enlistment, the first enlistment on or after the date of this order shall be considered the second period of service which shall carry with it the increased pay provided by this order, except that men discharged on recommendations of boards of medical survey shall, if they reenter the service, be given credit for any previous periods of service in the Navy which were terminated by reason of expiration of enlistment. (Executive order, Nov. 27, 1906.) (General Orders, No. 34, Nov. 28, 1906.)

18. Chief petty officers detailed as instructors of apprentice seamen at naval stations who qualify as instructors by examination shall receive hereafter in addition to their pay the sum of \$10 per month while so detailed, such pay to be considered extra pay for special duty. (General Orders, No. 34, Nov. 28, 1906.)

19. Apprentice seamen detailed as apprentice chief petty officers, apprentice petty officers, first, second, or third class, in connection with the instruction of apprentice seamen at naval stations, shall receive hereafter in addition to their pay the sum of \$2.50, \$2, \$1.50, and \$1 each per month, respectively, while so detailed, such pay to be considered extra pay for special duty. (General Orders, No. 34, Nov. 28, 1906.)

20. Hospital stewards, hospital apprentices, first class, and hospital apprentices are not entitled to additional pay enumerated above, as their pay is fixed by law. (Act June 17, 1898; see Comp. Dec., Oct. 20, 1906.)

21. On and after July 1, 1907, all enlisted men of the Navy shall receive, on first enlistments, outfits amounting in value as follows (General Orders, No. 43, April 6, 1907):

Samoans and such men of the messman branch as are not required to possess complete outfits, not to exceed.....	\$20.00
Men of the insular force, not to exceed.....	30.00
All other enlisted men, not to exceed.....	60.00

Any man enlisting on or after December 1, 1906, who is discharged during the first six months of a first enlistment for any cause other than disability incurred in the line of duty shall have checked against his accounts prior to discharge the cost of such portion of outfit allowed on first enlistment as he may have drawn. (General Orders, No. 31, Oct. 29, 1906.)

22. Any man who has received an honorable discharge from his last term of enlistment, or who has received a recommendation for reenlistment upon the expiration of his last term of service of not less than three years, who reenlists for a term of four years within four months from the date of his discharge shall receive an increase of \$1.36 per month to the pay prescribed for the rating in which he serves for each consecutive reenlistment. (Art. 838, N. R., 1905.)

23. Twenty cents per month is deducted from the pay of each enlisted man of the Navy, to be applied to the fund for naval hospitals. (Sec. 4808, R. S.)

24. Enlisted men of the Navy discharged by reason of expiration of enlistment shall be furnished at time of discharge, in lieu of transportation and subsistence, travel allowance of 4 cents per mile for travel performed within the United States to place of enlistment, as provided by Art. 881, pars. (1), (2), and (3), N. R., 1905.

(D) There has been no general raise of pay proper. To encourage reenlistments, Executive order of November 9, 1905, which was general in its scope, provided for the payment of \$5 and \$3 extra per month, subject to certain restrictions. (See item 6 of above extract from Navy Pay Table.) It may be generally stated that when the Department found certain specialties or crafts were required in the rapid development of ship mechanisms or ship economy and they could not be induced to enlist for the pay in effect at the time, by Executive order it was increased and the desired men obtained. Generally speaking the elasticity of the present pay table has permitted the Executive to obtain men when most needed, by competition with rates of pay in civil life, and without this elasticity the

Navy, instead of being recruited to nearly its allowed complement, would be worse off than the Army, or more than 20,000 short, for with equal inducements as to pay, the Army will always be more rapidly recruited than the Navy, and the percentage of reenlistments in the former will always be greater. The work of the Navy is harder, the service much more exacting, and an enlisted man to remain in it must give up all prospect of home life. There is practically no shore duty for the enlisted man—he may average thirty days a year with his family. The “items of extra pay” indicate clearly the need at various times for inducements to make men enlist and remain in the service. It is a case in point that the miserable pay rate of musicians, and the fact that only United States citizens are enlisted, keep all bands depleted. Men can not go to sea and support a family on \$30 a month, the pay of a musician, second class, so they will not enlist now, but if by Executive order the pay is raised 25 per cent we will have no difficulty.

The following is a table of the various ratings in the Navy which experience has proved are necessary to adequately handle the work of a modern war vessel in all its departments. The numbers in each rating depend upon the character of the vessel.

[Navy and Marine Corps pay tables.]

TABLE NO. 4.—*Petty officers, enlisted men, etc.—Navy.*

CLASSIFICATION AND PAY.

Chief petty officers.

Seaman branch.	Monthly pay.	Artificer branch.	Monthly pay.	Special branch.	Monthly pay.
Chief masters-at-arms.....	\$65	Chief machinists' mates....	\$70	Chief yeomen.....	\$60
Chief boatswains' mates....	50	Chief electricians.....	60	Hospital stewards.....	50
Chief gunners' mates.....	50	Chief carpenters' mates....	50	Bandmasters.....	52
Chief turret captains.....	60	Chief water tenders.....	50		
Chief quartermasters.....	50				

Petty officers, first class.

Masters-at-arms, first class	\$40	Bollermakers.....	\$65	Yeomen, first class.....	\$40
Boatswains' mates, first class	40	Machinists' mates, first class	55	First musicians.....	36
Gunners' mates, first class	40	Coppersmiths.....	55		
Turret captains, first class	50	Shipfitters, first class.....	55		
Quartermasters, first class..	40	Electricians, first class....	50		
		Blacksmiths.....	50		
		Plumbers and fitters.....	45		
		Sailmakers' mates.....	40		
		Carpenters' mates, first class	40		
		Water tenders.....	40		
		Painters, first class.....	40		

Petty officers, second class.

Masters-at-arms, second class	\$35	Machinists' mates, second class	\$40	Yeomen, second class.....	\$36
Boatswains' mates, second class	35	Electricians, second class..	40		
Gunners' mates, second class	35	Shipfitters, second class....	40		
Quartermasters, second class	35	Oilers.....	37		
		Carpenters' mates, second class	35		
		Printers.....	35		
		Painters, second class.....	35		

TABLE No. 4.—*Petty officers, enlisted men, etc.—Navy—Continued.*

CLASSIFICATION AND PAY—Continued.

Petty officers, third class.

Seaman branch.	Monthly pay.	Artificer brach.	Monthly pay.	Special branch.	Monthly pay.
Masters-at-arms, third class.	\$30	Electricians, third class...	\$30	Yeomen, third class.....	\$30
Coxswains	30	Carpenters' mates, third class	30	Hospital apprentices, first class	30
Gunners' mates, third class.	30	Painters, third class.....	30		
Quartermasters, third class.	30				

Seamen, first class.

Seamen gunners.....	\$26	Firemen, first class.....	\$35	Musicians, first class	\$32
Seamen	24	Shipwrights.....	25		

Seamen, second class.

Ordinary seamen	\$19	Firemen, second class	\$30	Musicians, second class...	\$30
				Buglers	30
				Hospital apprentices.....	20

Seamen, third class.

Apprentice seamen	\$16	Coal passers.....	\$22	Landsmen	\$16
		Landsmen	16		

COMMISSARY BRANCH.

Chief commissary steward	\$70	Ships' cook, fourth class	\$25
Commissary steward	60	Bakers, first class.....	45
Ships' cooks, first class	45	Bakers, second class.....	35
Ships' cooks, second class.....	40	Landsmen.....	16
Ships' cooks, third class.....	30		

MESSMEN BRANCH.

Stewards to commanders in chief.....	\$60	Steerage stewards	\$35
Cooks to commanders in chief.....	50	Steerage cooks	30
Stewards to commandants	60	Warrant officers' stewards.....	35
Cooks to commandants	50	Warrant officers' cooks	30
Cabin stewards	50	Mess attendants, first class.....	24
Cabin cooks	45	Mess attendants, second class.....	20
Wardroom stewards.....	50	Mess attendants, third class.....	16
Wardroom cooks	45		

Below are shown representative types of ships, with the total complements and the number of petty officers who directly exercise command and jurisdiction over men of inferior ratings. These correspond in their general functions to the sergeants and corporals in an infantry organization. It is noted that the average of all types gives 1 petty officer to about 7.5 men.

Vessel.	Type.	Tons.	Number on board.	Number of petty officers.	Ratio of petty officers to men on board.
Connecticut	Battle ship, first class	16,000	843	98	1 to 8.3
Tennessee	Armored cruiser	4,500	898	88	1 to 10
St. Louis	Cruiser, first class	9,700	513	77	1 to 6.8
Chicago	Cruiser, second class	4,500	289	52	1 to 5
Chattanooga	Cruiser, third class	3,200	255	46	1 to 6.5
Stewart	Destroyer	420	77	19	1 to 4
Total .....	.....		2,856	380	1 to 7.5

The work of the ship also requires specialists, electricians, carpenters, boiler makers, coppersmiths, blacksmiths, printers, and painters; and yeomen (clerks), hospital corps men, musicians, cooks, and stewards, etc. Most of these men are employed in parties by themselves, doing the work allotted, but exercise no command. Because of their importance, however, and the fact that they would not serve without a recognized status, they are graded as petty officers of the first, second, and third classes, in a somewhat similar manner that paymasters, doctors, and chaplains are given commissioned rank, because they would not serve without it. Thus, a boiler maker, who is one of the best paid enlisted men on board ship, receiving \$65 per month on first enlistment, is ruled a petty officer, first class, although he works only at his specialty and gives orders to no one. While a ship of the *Connecticut* class has a total enlisted complement of 843 men, 193 of them are classed as "petty officers," including the 98 in the table who regularly exercise command.

In the entire Navy there are about 10,086 petty officers, as explained; the total enlisted force is now 38,300, plus the number undergoing punishment in prisons, approximately 400, and those doing duty with the Naval Militia, about 100 more, who by law are in excess of the allowed complement, 38,500.

[No. 81.]

NAVY DEPARTMENT,
Washington, March 6, 1908.

**FOR THE APPOINTMENT AND COMPENSATION OF CIVILIAN
PROFESSORS AND CIVILIAN INSTRUCTORS AT THE NAVAL
ACADEMY—DEPARTMENT LETTER.**

SIR: The Department is in receipt of your letter of March 2, 1908, requesting its views with respect to a bill (H. R. 14651) "to provide for the appointment and compensation of civilian professors and civilian instructors at the Naval Academy."

While it is believed that the compensation allowed civilian professors at the Naval Academy could, with propriety, be increased, the Department is not in favor of any measure which would tend toward rendering permanent the employment of civilian professors and civilian instructors, because it is deemed of the first importance that the midshipmen be instructed in all scientific and professional branches by officers of the Navy rather than by civilians—this instruction being never purely academic, but of such a nature that the idea of discipline necessarily runs through the course in every department of study.

In view of the foregoing, and for the further reason that the bill (H. R. 14651) contemplates the establishment of a civil retired list by creating the rank of "professor emeritus," the Department recommends adverse action thereon.

Very respectfully,

V. H. METCALF,
Secretary.

HON. GEORGE EDMUND FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives.*

[No. 82.]

**TO ADD A CORPS OF DENTAL SURGEONS TO THE BUREAU OF
MEDICINE AND SURGERY OF THE NAVY—DEPARTMENT
LETTER.**

NAVY DEPARTMENT,
Washington, March 3, 1908.

SIR: I have the honor to acknowledge receipt of your letter of the 19th instant, inclosing a bill (H. R. 548) to add a corps of dental surgeons to the Bureau of Medicine and Surgery of the Navy.

While the Department is in favor of the enactment of legislation to provide for a corps of dental surgeons in the Navy, as will be seen by reference to my annual report for 1907 (p. 20), the provisions of the above bill in several respects do not meet with approval. For instance, to establish fixed grades and provide for promotions in a corps all appointments to which, at the outset at least, should be temporary in character is not considered necessary or advisable at this time. Furthermore, should this bill be enacted, authorizing the revocation by the President of any appointment made under its provisions, "when, within three years from his appointment, an appointee discloses inaptitude or lack of professional fitness for the service," the status of appointees thereunder would be somewhat anomalous in view of the provisions of existing law, that "in time of peace no officer shall be dismissed except in pursuance of the sentence of a general court-martial" (art. 36, sec. 1624, R. S.).

Attention is invited to the bill (H. R. 16620) authorizing the appointment of dental surgeons in the Navy, the provisions of which are in line with the Department's views on the subject. It will be noted that under this latter bill all appointees will receive "the rank and compensation of acting assistant surgeons in the Navy * * * and their appointments shall be for a term of years and revocable at the pleasure of the President." As will be seen, the expenditure involved by such legislation would be less than that required by the terms of H. R. 548.

Very respectfully,

V. H. METCALF, *Secretary.*

HON. GEORGE EDMUND FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives.*

[No. 83.]

**FOR THE ESTABLISHMENT AND ORGANIZATION OF A CORPS
OF TRAINED WOMEN NURSES FOR THE UNITED STATES
NAVY—DEPARTMENT LETTER.**

NAVY DEPARTMENT,
Washington, March 3, 1908.

SIR: I have the honor to transmit herewith for your information and that of the committee a copy of a memorandum, dated the 29th ultimo, just received from the Surgeon-General of the Navy, setting forth the importance of legislation making provision for the proper care and nursing of the sick and injured of the Navy, for the hospital corps, and for the establishment of a dental corps.

In this connection attention is invited to the bill (H. R. 15438) for the establishment and organization of a corps of trained women nurses for the United States Navy, introduced by Mr. Burton; to the bill (H. R. 305) to organize and increase the efficiency of the hospital corps of the United States Navy and regulate its pay, introduced by Mr. Roberts, and to the bill (H. R. 16620) authorizing the appointment of dental surgeons in the Navy, introduced by Mr. Butler. These measures contain the provisions referred to by the Surgeon-General in his letter, and are such as are necessary to provide the Navy with proper facilities for the nursing and care of its sick and injured.

Particular attention is invited to the Surgeon-General's statement that "there has been and is now much preventable suffering" in the Navy, and that he believes that "many deaths have occurred which might have been prevented," if action in the matter of nursing had been taken as heretofore recommended.

Concurring with the Surgeon-General in the view that this is an important matter, the bills above mentioned are commended to favorable consideration.

Very respectfully,

V. H. METCALF,
Secretary.

HON. GEORGE EDMUND FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives.*

DEPARTMENT OF THE NAVY,
BUREAU OF MEDICINE AND SURGERY,
Washington, D. C., February 29, 1908.

SIR: With a deficiency of at least 250 men nurses, and a large majority of those on duty untrained, the gravest concern is felt by this Bureau as to the care of those needing proper nursing. The result

of this condition, which has persisted for the past four years, is such that there has been and is now much preventable suffering of the sick and the injured of the Navy, and I believe also that many deaths have occurred which might have been prevented if this Bureau's request as to action in regard to this matter of nursing had been acted upon several years ago, and I wish to state here that this Bureau has done its full duty in and out of season to bring the attention of the Department and Congress to the conditions which have existed so long.

As one of the most important duties of this Bureau is to see that the sick and injured of the Navy are properly nursed, I wish to bring the above facts to your attention once more as strongly as possible. Men nurses can not be had unless provision is made for obtaining raw material in the shape of young men and making provision for holding them in the service after being trained. To do this it is absolutely necessary to put them at least on the same footing as corresponding grades of the line as to pay and allowances. The same recruiting officer recruits for the line and staff, and when he informs applicants that hospital corps men get less pay and allowances than the corresponding ratings of the line or other staff corps, of course the recruits take the best-paid position. Thus it is clear that there can be very few enlistments in the hospital corps. What we ask now is that the hospital corps, which now stands by itself, shall be put on the same footing as the line and other staff corps in regard to pay and allowances. House bill No. 305, which it has just been agreed by the House Naval Committee to report favorably, will, it is believed, give relief, and I beg that you will do all in your power to have the bill become a law.

Your attention is further called to the conditions which this Bureau labors under in regard to dentists in the Navy. The bill creating a dental corps should also become a law at this session of Congress, as well as the one providing for women nurses, both of which would assist in relieving preventable suffering in the service.

Very respectfully,

P. M. RIXEY,
Surgeon-General U. S. Navy.

THE SECRETARY OF THE NAVY.

[No. 84.]

**FOR EQUIPPING AND MAINTENANCE OF NEW NAVAL DISPENSARY
AT THE NAVAL TRAINING STATION ON YERBA BUENA ISLAND,
CALIFORNIA—DEPARTMENT LETTER.**

NAVY DEPARTMENT,
Washington, March 5, 1908.

SIR: I have the honor to transmit herewith for your information a copy of a letter which the Department has addressed to the chairman of the Committee on Naval Affairs, United States Senate, relative to securing an appropriation for the equipping and maintenance of the new naval dispensary at the naval training station on Yerba Buena Island, California.

Very respectfully,

V. H. METCALF,
Secretary.

The CHAIRMAN OF THE COMMITTEE ON NAVAL AFFAIRS,
House of Representatives, Washington, D. C.

NAVY DEPARTMENT,
Washington, March 5, 1908.

SIR: The Department has the honor to inform the committee that by an act of Congress approved March 2, 1907, the sum of \$20,000 was appropriated for the construction of a dispensary building at the naval training station on Yerba Buena Island, California. As this building is designated as a "dispensary," the appropriations of the Bureau of Medicine and Surgery for the care and maintenance of "hospitals" are not available for equipping the building other than to provide it with medical supplies. In view of the meager facilities for the care of the sick on the west coast, it is important that the new sick quarters at Yerba Buena be put in the best condition possible for that purpose.

The appropriation for the maintenance of the station is too limited to permit of its being used for equipping and maintaining the dispensary, and the Department submits the following estimate of the amount required to place the dispensary in service and maintain it for the balance of the current fiscal year and for the fiscal year ending June 30, 1909:

For the remainder of current fiscal year:

Mess gear and kitchen utensils for general, surgical wards, patients and attendants, and isolation building wards, etc.....	\$610.60
Dispensary furniture for general and surgical wards building; nurses', resident surgeon's rooms and office.....	1,202.75
Bedding, stationery, etc.....	920.70
Fuel, 20 tons, at \$10.20 per ton (2 months' supply)....	204.00
Contingencies.....	100.00
	<hr/>
	\$3,038.05

For the fiscal year ending June 30, 1909:

Fuel, 130 tons, at \$10.20 per ton-----	\$1, 328. 00	
Contingencies-----	200. 00	
		<u>\$1, 528. 00</u>
Total -----		4, 564. 05

The Department has the honor to request that the chairman of the Senate Committee on Naval Affairs cause to be inserted in the pending naval appropriation bill provision for the above amount, and it is recommended that the amount be made immediately available in order that it may be utilized for the needs of the dispensary the remainder of the current fiscal year, as well as for those of next year.

The Department offers the suggestion that a clause similar to the following be added to the language of the appropriation for the maintenance of the naval training station, California: "*Provided further*, That the sum of \$4,564.05 is hereby appropriated for the equipment and maintenance of the dispensary, said sum to be immediately available."

Very respectfully,

V. H. METCALF,
Secretary.

The CHAIRMAN SENATE COMMITTEE ON NAVAL AFFAIRS,
United States Senate, Washington, D. C.

[No. 85.]

EXTRA-DUTY PAY NOT TO BE ALLOWED TO MEN OF THE MARINE CORPS.

HEADQUARTERS U. S. MARINE CORPS,
QUARTERMASTER'S OFFICE,
Washington, D. C., March 9, 1908.

SIR: The Court of Claims, under date of May 6, 1907, rendered a decision, No. 28332, allowing an enlisted man of the Marine Corps extra-duty pay for clerical duty performed by him at a post of the corps by order of the commanding officer of that post, but without the written order of the Commandant of the corps. Under such decision the Auditor for the Navy Department has decided to allow claims for extra-duty pay to enlisted men of the corps assigned to such duty either by the Commandant of the corps or by commanding officers of posts. Formerly no enlisted man received extra-duty pay unless he was so detailed by a written order of the Commandant. The result is that our expenses for extra-duty pay have increased materially, and under the decision of the Court of Claims and the ruling of the Auditor for the Navy Department we can not prevent men assigned to extra duty by commanders of posts from receiving extra compensation, and the expense will therefore become even greater than now.

2. I have talked with the office of the Auditor on this subject several times, and there seems to be no way out of the embarrassment and extra expense except through special legislation. I have the honor, therefore, to recommend that the inclosed draft of a special provision be incorporated in the naval appropriation act now pending before your committee, the same to be inserted after the last words, to wit, "three hundred and thirty thousand eight hundred dollars," subhead "Contingent, Marine Corps," line 16, page 204, draft No. 1 of the bill mentioned.

3. I make this recommendation solely in the interest of economy and in order that we may control these details at headquarters and not leave such assignments to the discretion of post commanders. If the provision referred to is inserted in the bill there will be a saving in the annual expense of from \$10,000 to \$12,500 under present conditions. Such increase will become greater as time grows unless we put in the law the restriction which I suggest.

4. I sincerely hope that you will agree with me that the proposition is a wise one. The Auditor for the Navy Department is of my

opinion and advises the adoption of the special legislation which I submit.

Very truly, yours,

F. L. DENNY.

Hon. GEORGE E. FOSS,

*Chairman of the Committee on Naval Affairs,
House of Representatives.*

[Draft.]

Provided, That hereafter extra-duty pay will not be allowed to enlisted men of the Marine Corps for extra services rendered by them except when said men are regularly detailed by the written order of the Commandant of the corps.

[No. 86.]

FOR THE CORRECTION OF THE NAVAL RECORD OF SAMUEL
CHARLES HAMPTON—DEPARTMENT LETTER.

NAVY DEPARTMENT,
Washington, March 10, 1908.

SIR: In compliance with your request, dated February 29, 1908, for an expression of the Department's views with respect to a bill (H. R. 2416) "for the correction of the naval record of Samuel Charles Hampton," I have the honor to quote from the Department's letter of January 27, 1908, in reply to Hampton's application for removal of the mark of desertion standing on the records against his name:

It appears from an examination of the records on file in the Bureau of Navigation that you enlisted in the Navy at the navy-yard, Mare Island, Cal., January 4, 1889, as an ordinary seaman, for three years; served on board the U. S. S. *Independence* and *Vandalia*, and deserted from the receiving ship at Mare Island, Cal., June 18, 1889.

In cases of desertion occurring since the civil war the Department is empowered to remove the charge of desertion only in cases where it is conclusively shown that the charge has been erroneously retained on the records, and it appearing that the charge of desertion of date June 18, 1889, was properly entered on the records against your name, it is not in the power of the Department to remove said charge.

While the question of granting relief in this case is one for determination by Congress, it is suggested that, in view of the peculiar significance which attaches in the Navy to the term "honorable discharge," the word "honorable" be omitted from lines 6 and 7 of this bill (H. R. 2416) if it is to be favorably considered.

Very respectfully,

V. H. METCALF,
Secretary.

The CHAIRMAN OF THE COMMITTEE ON NAVAL AFFAIRS,
House of Representatives.

[No. 87.]

FOR THE RELIEF OF JOHN H. BUTMAN—DEPARTMENT LETTER.

NAVY DEPARTMENT,
Washington, March 10, 1908.

SIR: Referring to your communication of the 3d instant, requesting to be furnished, for the use of the Committee on Naval Affairs in considering the bill H. R. 13294, "for the relief of John H. Butman," with any evidence on file in the Department touching upon the report of inefficiency made against Mr. Butman while serving in the Navy during the civil war under an appointment as acting ensign, together with the views of the Department as to the propriety of the legislation proposed, I have the honor to inclose herewith for your information copies of correspondence submitted to the Department, and upon which its action was based at the time it revoked the appointment of Mr. Butman upon the grounds of inefficiency, viz: Letter, dated October 11, 1863, from Capt. B. F. Sands to Acting Rear-Admiral S. P. Lee; letter, dated October 16, 1863, from Acting Ensign John H. Butman to Capt. F. B. Sands, with indorsement thereon of October 29; resignation, dated October 17, 1863, of John H. Butman as acting ensign, with indorsement thereon; letter, dated October 26, 1863, from Admiral Lee to the Secretary of the Navy; letter, dated February 13, 1864, from Charles M. Whelden, lieutenant-colonel and provost-marshal, district of Virginia, to D. Lynch, commanding the *St. Lawrence*, and a letter, dated February 17, 1864, from Admiral Lee to the Secretary of the Navy.

The report, dated November 16, 1863, of the board appointed by direction of the Department to inquire into the discipline and condition of the *Iron Age*, together with Admiral Lee's letter, inclosed therewith, recommending the revocation of the appointment of Acting Ensign Butman, referred to in paragraph 3 of Admiral Lee's letter of the 17th of February, 1864, forwarded herewith, can not, after a thorough search of the records, be found.

In view of the circumstances connected with the revocation of the appointment of John H. Butman as an acting ensign, the Department does not recommend to the favorable consideration of the committee the bill granting him an honorable discharge, as such a discharge indicates that the possessor's service throughout was of an

honorable nature, while the records clearly show to the contrary in this case.

Butman's appointment was revoked February 20, 1864.

Very respectfully,

V. H. METCALF, *Secretary.*

HON. GEORGE EDMUND FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives.*

U. S. S. DACOTAH,

Off New Inlet, Cape Fear River, October 11, 1863.

SIR: In obedience to your indorsement over the report of Lieutenant-Commander Stone in the case of Acting Ensign William C. McDermott, dated September 23, 1863 (which I herewith reenclose), "to investigate and report facts and his (my) opinion thereon," I have to report that: Having questioned Acting Ensign McDermott upon the charges reported against him by Lieutenant-Commander Stone, he, Mr. McDermott, denies the charge of drunkenness. Lieutenant-Commander Stone charges, as one of the facts in the case, Mr. McDermott with having entered his cabin in his absence and in a state of intoxication committed a nuisance there, which McDermott denies, except that he did enter the cabin while it was his watch on deck, and in the absence of his commanding officer, at the invitation of Acting Asst. Paymaster N. C. Freeman, to take a glass of wine. He admits that he overstayed his liberty at Beaufort, staying on shore all night.

He denies that he refused to take his regular watch, and that, on the contrary, he did take his watch upon being called by him he was to relieve. While on watch he was sent for by the executive officer, Acting Ensign J. H. Butman, to whom he sent word he would be there directly, and that the said executive officer was staggering drunk at the time, and who was put under arrest that same afternoon by his commanding officer.

Having read the above to Lieutenant-Commander Stone, he reiterates the charges and that his steward and cabin boy are witnesses to the nuisance; that his report is based upon his executive officer having, upon his (Lieutenant-Commander Stone's) return to the ship, reported Mr. McDermott for breaking his liberty and refusing to obey his order, and that, subsequently, upon inquiring for the officer of the deck, he was told by the executive officer that he was Mr. McDermott and that he was in the cabin. He, Lieutenant-Commander Stone, sent for him to come immediately on deck, which he did, apparently under the influence of liquor; upon which he suspended him from duty and made the report of September 23.

Acting Asst. Paymaster N. C. Freeman, of the *Iron Age*, states that he knows nothing of the above charges, except that he did bring a messmate in the cabin, invite Mr. McDermott into the cabin to take a glass of wine; that Mr. McDermott was not intoxicated, and that he committed no impropriety to his knowledge; and he thinks he would have known it if it had occurred.

Acting Ensign J. H. Butman, executive officer of the *Iron Age*, states that he did not order Mr. McDermott to take his watch on deck, but that he went to Mr. McDermott's berth to tell him to take his regular watch, but could get no reply from him, and that Mr. McDermott never to his knowledge used insubordinate language to him, except that when he (some hours after having been to his berth to call him) sent for him he sent word back that "if he (Mr. Butman) wanted to see him to come to him."

My opinion is that the whole difficulty arises from too free use of intoxicating drinks, of which it seems that the executive officer above named is a principal participant.

Very respectfully, etc., your obedient servant,

B. F. SANDS,

Captain, U. S. Navy, Senior Officer off Wilmington.

Acting Rear-Admiral S. P. LEE,

*Commanding North Atlantic Blockading Squadron,
Hampton Roads, Va.*

Received Saturday 17 at noon and forwarded to Admiral Lee with the report of the investigation in case of Acting Ensign McDermott. Respectfully, etc., B. F. Sands.

U. S. S. IRON AGE, *October 16, 1863.*

SIR: Captain Stone informs me that, as near as I can remember, your notes of my testimony read to him did not correspond with the body of his report to the Secretary of the affair. I wish to state the following to be my report to Captain Stone on the morning of his return to the ship from Newbern. It was my intention to have conveyed to you the idea embodied in the following: Whilst Captain Stone was in Newbern Mr. McDermott broke his liberty. After he came on board I went to his berth, having occasion to deliver a message and called to him, but could get no answer. Some time after, he being in the cabin, I sent for him for the purpose of ordering him to take his watch—he sent word back that if I wanted him I could come to him. I repeated the message and received the same answer. The above was the substance of my report to Captain Stone.

Very respectfully, your obedient servant,

JOHN H. BUTMAN,

Acting Ensign, U. S. Navy.

Capt. B. F. SANDS,

U. S. S. Dacotah.

October 29. It appears from letters received at this Department, that much drunkenness and irregularity has existed on board the U. S. S. *Iron Age* (fourth rate).

You will as soon as practicable direct a thorough investigation into the discipline and good condition of this vessel and report to this Department.

R. H. W.

U. S. S. IRON AGE,
Off Wilmington, N. C., October 17, 1863.

SIR: I have the honor to tender my resignation as acting ensign in the service of the United States Navy.

Very respectfully, your obedient servant,

JOHN H. BUTMAN,
Acting Ensign, U. S. Navy.

The HON. GIDEON WELLES,
Secretary of the Navy, Washington, D. C.

I would respectfully recommend that the resignation of Acting Ensign Butman be accepted. He appears to feel his incompetency to fill the position of an officer of the United States Navy, and I am sorry to say that I have been very much deceived in his ability.

Respectfully, your obedient servant,

EDW. E. STONE,
Lieutenant-Commander, U. S. Navy.

Approved (October 26, 1863).

S. P. LEE,
Acting Rear-Admiral,
North Atlantic Blockading Squadron.

No. 916.

U. S. FLAGSHIP MINNESOTA,
Off Newport News, Va., October 26, 1863.

SIR: I inclose herewith for the consideration of the Department the following papers:

(A) Report (September 23) against Acting Ensign W. C. McDermott, of the *Iron Age*, by Lieutenant-Commander Stone, of that vessel, for drunkenness, insubordination, and disobedience.

This paper was referred by me October 6 to Captain Sands, senior naval officer off Wilmington, for investigation.

(B) Report (October 6) of Captain Sands on the subject, who sums up by stating that, in his opinion, "the whole difficulty arises from the too free use of intoxicating drink, of which it seems that the executive officer (Acting Ensign J. H. Butman) is a principal participant."

(C) An explanatory paper (October 16) by Acting Ensign Butman.

(D), (E), (F) Tenders of resignation by Acting Ensigns John H. Butman and William C. McDermott and Acting Asst. Paymaster N. C. Freeman, all of whom are of the *Iron Age*, and all implicated in the transaction referred to in B, in consequence of which I have thought it proper to indorse my approval on each paper.

I have the honor to be, sir, very respectfully, yours,

S. P. LEE,
Acting Rear-Admiral,
Commanding North Atlantic Blockading Squadron.

HON. GIDEON WELLES,
Secretary of the Navy, Washington, D. C.

SERIES 2,
No. 19. }

HDQRS., DIST. OF VIRGINIA,
PROVOST-MARSHAL'S OFFICE,
Norfolk, Va., February 13, 1864.

SIR: On or about the 19th or 20th of January, W. McDermold, [sic] U. S. Navy, was found on Church street in this city very much intoxicated. I respected him as an officer of the Navy and rather than send him to the guardhouse I ordered him brought to my private quarters. After sleeping about two hours I awoke him and requested him to go to his quarters; he would not go; upon my trying to reason with him he made an assault upon my person; therefore I was obliged to send him to the guardhouse.

Very respectfully, your obedient servant,

CHAS. M. WHELDEN,
*Lieutenant-Colonel and Provost-Marshal,
District of Virginia.*

D. LYNCH,
Commanding U. S. S. St. Lawrence.

SERIES 2,
No. 87. }

U. S. FLAG SHIP MINNESOTA,
Off Newport News, Va., February 17, 1864.

SIR: Inclosed I forward to the Department (1) a report made by the provost-marshal at Norfolk, Lieut. Col. Chas. M. Whelden, of the conduct of Acting Ensign W. C. McDermott, formerly of the *Iron Age*. Upon the 26th of October, 1863, I forwarded to the Department the resignation of this officer, as well as that of Acting Ensign Butman, also of the *Iron Age*, with my approval indorsed thereon; accompanying the resignations I forwarded my letter, No. 916, explaining my reasons for such approval.

On the 16th November, 1863, I forwarded the report of the board of investigation directed by the Department to be ordered by me to inquire into the discipline and condition of the *Iron Age*, together with my No. 1005, in which I recommended the dismissal of Acting Ensign McDermott and the revocation of the appointment of Acting Ensign Butman.

Both of these officers are now temporarily attached to the *St. Lawrence*, Commander Lynch. I would respectfully submit the matter again to the Department for its decision with the additional report of Colonel Whelden.

I have the honor to be, sir, very respectfully, yours,

S. P. LEE,
Commanding North Atlantic Blockading Squadron.

To the HON. GIDEON WELLES,
*Secretary of the Navy Department,
Washington, D. C.*

[No. 88.]

EXPENDITURES BY OTHER BUREAUS FOR POWER PLANT—DEPARTMENT LETTER.

DEPARTMENT OF THE NAVY,
BUREAU OF YARDS AND DOCKS,
Washington, D. C., January 30, 1908.

MY DEAR SIR: Referring to my letter of the 29th instant inclosing a statement giving information concerning the expenditures by other bureaus for power plants, I write to say that the Bureau of Supplies and Accounts has just informed me that the totals stated on the list under the heads of ordnance, construction and repair, and steam engineering are incorrect, and should read as follows:

Ordnance	\$31,334.79
Construction and repair	131,944.57
Steam engineering	62,496.38

Very respectfully,

R. C. HOLLYDAY,
Chief of Bureau.

Hon. GEORGE E. FOSS, M. C.,
House of Representatives, Washington, D. C.

[No. 89.]

**TO PROVIDE FOR THE APPOINTMENT AND COMPENSATION OF
CIVILIAN PROFESSORS AND INSTRUCTORS AT THE NAVAL
ACADEMY—STATEMENT OF PROF. A. M. BROWN, LIBRARIAN AT
THE UNITED STATES NAVAL ACADEMY.**

**SUBCOMMITTEE ON ORGANIZATION, RANK, AND PAY
OF THE COMMITTEE ON NAVAL AFFAIRS.**

**House of Representatives,
Washington, D. C., Wednesday, March 11, 1908.**

The subcommittee met at 11 o'clock a. m.

The committee thereupon proceeded to the consideration of the bill (H. R. 14651) "to provide for the appointment and compensation of civilian professors and civilian instructors at the Naval Academy;" the bill (H. R. 11738) "to provide for the appointment, compensation, and retirement of civilian professors and civilian instructors at the Naval Academy;" the bill (H. R. 16620) "authorizing the appointment of dental surgeons in the Navy," and the bill (H. R. 4924) "for the relief of officers of the Navy retired for disability incident to the service employed on active duty."

**STATEMENT OF PROF. A. M. BROWN, LIBRARIAN AT THE UNITED
STATES NAVAL ACADEMY.**

The CHAIRMAN. There are two bills before us that provide for the appointment and compensation of civilian professors and civilian instructors at the Naval Academy—one introduced by Mr. Weeks and one introduced by Mr. Hobson. I do not know how they differ. Perhaps Mr. Weeks could tell us, or Mr. Hobson, how these two bills differ one from the other.

Mr. HOBSON. They do not differ very materially. The bill No. 14651 is subsequent to the bill of Mr. Weeks, and it has the indorsement of Mr. Weeks as having, possibly, some provisions that were left out of his bill.

The CHAIRMAN. The first two sections of the bill are as follows:

SECTION. 1. That there shall be employed at the Naval Academy such number of civilian professors and instructors as the Secretary of the Navy may from time to time consider necessary.

SEC. 2. That civilian professors at the Naval Academy shall receive annually during the first five years of service, \$2,200; during the second five years of service, \$2,500; during the third five years of service, \$2,800, and after fifteen years' service, \$3,000 annually.

I will ask Professor Brown, of the Naval Academy, to make his statement. Professor, please state your name and position at the Naval Academy?

Professor BROWN. My name is Arthur M. Brown. I am librarian at the Naval Academy.

The CHAIRMAN. How long have you been there?

Professor BROWN. Twenty-two years.

The CHAIRMAN. What is the pay of civilian professors now?

Professor BROWN. The pay to-day ranges from \$2,200 to \$3,000.

The CHAIRMAN. So really there is no difference provided for in this section, is there, between the pay at the present time and the pay under this bill?

Mr. HOBSON. May I remark, Mr. Chairman, that this bill does not entail any appreciable increase over the existing condition to-day. It would entail about \$11,000 increase of expense next year and a maximum, perhaps ten years hence, that would not exceed \$26,000.

(After an informal discussion:)

The CHAIRMAN. You say that they are receiving at the present time from \$2,200 to \$3,000?

Professor BROWN. Yes, sir.

The CHAIRMAN. According to the length of service?

Professor BROWN. No, sir; excuse me.

The CHAIRMAN. Not according to the length of service?

Professor BROWN. That is the main feature of the bill. There is no provision by which there is any passing from one grade to another at present. It is rather haphazard, and the main purpose of the bill, if you will excuse me, is to provide for a regular gradation of pay according to length of service, as has been recommended by the boards of visitors.

The CHAIRMAN. How many civilian professors have we at the present time at the Naval Academy?

Professor BROWN. Nine civilian professors.

The CHAIRMAN. What do they receive?

Professor BROWN. One receives \$3,000.

The CHAIRMAN. What is he professor of?

Professor BROWN. He is professor of physics.

The CHAIRMAN. Is that Professor Terry?

Professor BROWN. Professor Terry.

The CHAIRMAN. And what is the next one?

Professor BROWN. Five receive \$2,500.

The CHAIRMAN. Who are they?

Professor BROWN. They are Prof. W. W. Johnson, Professor Marion, Professor Johnson, Professor Cusachs, and Professor Brown.

The CHAIRMAN. And what do the rest of the professors receive?

Professor BROWN. The rest of them receive \$2,200 each. They are Professor Des Garennnes, Professor Voinot, and Professor Stevens—three.

The CHAIRMAN. Now, section 3:

That when any civilian professor shall have reached the age of 62 years, or shall be found by a board to be incapacitated for active service, he shall, on the 1st of July next following, be relieved from active service and be appointed professor emeritus, with annual pay equal to 75 per cent of the pay and allowances provided for the grade held by him at that time: *Provided*, That he has performed twenty-five years' active service at the Naval Academy. Civilian

professors not occupying public quarters shall be entitled to commutation for three rooms, with heat and light allowances as provided for the Navy, with the additional allowance of one room, heated and lighted, after ten years' service.

At the present time there is no retired list, I understand, for civilian professors.

Professor BROWN. No, sir.

The CHAIRMAN. None at all. This will give them three-quarters of the pay and allowances of the grade held by them at the time of their retirement?

Professor BROWN. Yes, sir.

The CHAIRMAN. This bill does not seem to provide for any grade, does it? That is to say, it does not give them any rank.

Professor BROWN. No, sir.

The CHAIRMAN. It does not give them any rank; it simply—

Mr. GREGG. Mr. Chairman, there is one question right there that I would like to ask Professor Brown, if he knows, Are there any civilian professors employed at the Military Academy?

Professor BROWN. There are civilians employed at the Military Academy. They began employing them in 1904.

Mr. GREGG. Not prior to then?

Professor BROWN. Not prior to then.

The CHAIRMAN. There is no provision about them, then, of this kind, is there?

Mr. OLCOTT. Do you mean by the present law?

Mr. GREGG. I say, at the Military Academy are there civilian professors? Do they have civilian professors there?

Professor BROWN. If you will allow me to state it the way I do understand it, they have professors at West Point, but they are commissioned officers. They are commissioned as officers of the Army and are a part of the Army.

Mr. GREGG. They have no civilians, then?

Professor BROWN. In 1904 they introduced two civilian instructors in languages, and now that number has been increased to four; but before that everybody connected with West Point was commissioned.

Mr. GREGG. And was an officer taken from the Army?

Professor BROWN. Yes, sir.

Mr. GREGG. How many will this twenty-five-year limit apply to?

Professor BROWN. Two.

Mr. GREGG. Only two now?

Professor BROWN. Only two—Professor Johnson and Professor Terry.

Mr. GREGG. When will they reach the age limit of 62 years?

Professor BROWN. They have reached it.

Mr. GREGG. They have passed it, have they?

Professor BROWN. I can not speak definitely of that, but my impression is that Professor Terry is 64 and Professor Johnson is about 65.

Mr. GREGG. Do you think at the age of 62 a man is incapacitated for teaching?

Mr. HOBSON. He does not have to be.

Mr. OLCOTT. That would be found by the board.

Mr. HOBSON. They could continue to employ them.

Mr. OLCOTT. No; it says "shall."

Mr. GREGG (reading): When any civilian professor shall have reached the age of 62 years, or shall be found by a board—

Either—

he *shall*, on the 1st of July next following, be relieved, etc.

Mr. HOBSON. I think it is intended that they could be employed longer.

Mr. OLCOTT. Why do you not say, "may, upon his own application?"

Mr. GREGG. Suppose it were worded this way: "When any civilian professor shall have reached the age of 62 years, he may, or when he shall be found by a board to be incapacitated for active service, he shall be retired?"

Mr. HOBSON. Yes; that was what it was intended for.

Mr. OLCOTT. Yes; the word "may" ought to go in there after "62 years."

Mr. GREGG. Then it would be left to the discretion of the board.

Mr. HOBSON. I had not read through the wording of this printed bill, but I think I drafted the original one in that way.

Mr. OLCOTT. If you put in the word "may" after "years" it will cover that.

Mr. HOBSON. Then when he is found incapacitated, "he shall," etc.

Mr. OLCOTT. Yes. Now, Mr. Chairman, may I ask Mr. Hobson one question here?

The CHAIRMAN. Yes.

Mr. OLCOTT. Are the words "by a board" definite enough? Is it known, under the naval law, just what that means?

Mr. GREGG. I think that is a technical term.

Mr. HOBSON. I take it that it would be analogous to a retiring board.

Mr. OLCOTT. Why do you not put in "by a retiring board?" It seems to me that to put in "retiring board" would make it plainer.

Mr. HOBSON. All right.

The CHAIRMAN. Why do you not leave that with the Secretary of the Navy? Would not that be better?

Mr. GREGG. He would appoint a board. You ought to have there "a board to be appointed by the Secretary of the Navy," ought you not—"by a board to be designated by the Secretary of the Navy?"

Mr. WEEKS. You might specify that.

Mr. GREGG. That wording "by a board," is a little indefinite.

Mr. HOBSON. Put in there "to be appointed by the Secretary of the Navy."

The CHAIRMAN. Do any of the professors get commutation for quarters?

Professor BROWN. None of them get commutation, sir.

The CHAIRMAN. But do they get quarters?

Professor BROWN. The bachelors get quarters, usually.

The CHAIRMAN. The bachelors? Do the married professors get quarters?

Professor BROWN. No, sir.

Mr. GREGG. Do they have to rent their own houses?

Professor BROWN. Yes, sir.

The CHAIRMAN. Now, section 4:

That civilian instructors at the Naval Academy shall receive annually during the first three years of service \$1,500; during the second three years of service, \$1,750, and thereafter during their employment, \$2,000. Civilian instructors and the assistant librarian at the Naval Academy, when not occupying public quarters, shall receive commutation for two rooms, with heat and light allowances, as provided for the Navy.

Do they receive any quarters now at all?

Professor BROWN. Only bachelors.

The CHAIRMAN. Only bachelors?

Professor BROWN. The same as professors.

The CHAIRMAN. Is this the salary that they are receiving at the present time—from \$1,500 to \$2,000?

Professor BROWN. Yes, sir.

The CHAIRMAN. Section 5:

That as vacancies occur civilian professors for service at the Naval Academy shall be appointed by the Secretary of the Navy. Civilian instructors shall be appointed annually by the Secretary of the Navy.

Mr. HOBSON. That ought to have a little explanation.

The CHAIRMAN. Yes; I wish you would give that. Do you mean to leave it with the Secretary of the Navy to say how many he shall appoint each year?

Professor BROWN. It says "as vacancies occur."

The CHAIRMAN. Oh, yes, I see—"as vacancies occur."

Professor BROWN. Yes.

Mr. GREGG. The last provision there is that "civilian instructors shall be appointed annually by the Secretary of the Navy."

Professor BROWN. The civilian instructors are a temporary force that were taken on in 1903, I believe, and increased in number first by ten—

Mr. GREGG. I see you make a distinction there between civilian professors and civilian instructors.

Professor BROWN. Yes, sir.

Mr. GREGG. That is right; I see.

Professor BROWN. If I might explain a little the use of the terms at the academy, it would simplify things a little, I think.

The CHAIRMAN. Yes; we should be glad to have you.

Professor BROWN. There are 80 officers attached to the academy. Of those 23 are occupied either in administration, or the department of discipline, or the executive departments. Fifty-seven are occupied in teaching; but the term "teacher" is never used at the academy. They are always referred to as instructors, even if they are officers. Some of the instructors are professors of mathematics. They are commissioned officers of the Navy. There are four or five there now; and all of them, as I said before, are commissioned officers.

Besides that there are civilians—civilian professors and civilian instructors. So the term "instructor" is always used, instead of "teacher." An instructor may be a civilian or may be an officer; but the division is made between civilian instructors and civilian professors. The civilian instructors are assumed to be a temporary force, due to the lack of officers, and they are appointed annually.

Mr. HOBSON. How many are there to-day?

Professor BROWN. There are 19 to-day.

Mr. GREGG. Civilian instructors?

Professor BROWN. Civilian instructors.

Mr. OLCOTT. They are usually reappointed, are they not?

Professor BROWN. They have been, yes, except in case of resignation. Some of the very good ones have resigned. Three have resigned and two have not been reappointed.

The CHAIRMAN. Section 6 reads:

That the civilian professors and instructors now at the Naval Academy shall receive, according to length of service, the rates of pay and allowances herein provided in the same manner as they would had their original appointments been made under the provisions of this act; but nothing in this act shall be so construed as to reduce the pay now received by any professor or instructor, or to give any claim for back pay.

That seems to explain itself.

Here is a proposed amendment, section 7:

That the sword master of the United States Naval Academy shall henceforth be known as professor of fencing, and shall receive the pay, allowance, and emeritus privileges of the civilian professors herein provided for, and shall be credited with all prior service as sword master.

Who is the sword master down there, Professor?

Professor BROWN. Mr. Corbesier.

The CHAIRMAN. How long has he been there?

Professor BROWN. He came there in the sixties, under Admiral Porter. He has been there forty-two years.

The CHAIRMAN. What pay is he receiving at the present time?

Professor BROWN. I think it is \$1,500; I am not certain.

(After an informal discussion, Mr. Hobson stated that he would withdraw the proposed amendment known as section 7.)

Mr. GREGG. There is one question that I would like to ask Professor Brown. (I could hunt out the information, I suppose.) In section 4 it is provided that the civilian instructors shall receive annually, during the first three years of service, \$1,500. What are they receiving now?

Professor BROWN. The different rates are \$1,500, \$1,800, and \$2,000.

Mr. GREGG. They are receiving now exactly what is provided in this bill?

Professor BROWN. Not exactly; because one of these is receiving \$1,750, instead of \$1,800. It is only—

The CHAIRMAN. Fifty dollars less?

Professor BROWN. Yes; \$50 less; that is all.

Mr. HOBSON. Mr. Chairman, may I make one or two remarks on this bill before you leave it?

The CHAIRMAN. We want to get through with the professor so as to let him go.

Professor BROWN. I am at your disposal.

The CHAIRMAN. Do any members of the committee desire to ask any more questions of the professor?

Mr. OLCOTT. It is understood, Mr. Chairman, is it not, that the word "may" shall be put in there as suggested, and "a board to be appointed by the Secretary of the Navy?"

The CHAIRMAN. Yes; "by the Secretary of the Navy," right after "sixty-two years."

STATEMENT OF REPRESENTATIVE RICHMOND P. HOBSON.

This bill is conservative.

I. It does not involve any considerable increase of cost. It is estimated that the total increase for next year would be about \$11,000 and that the maximum increase in the future, on the existing basis of number, would not exceed \$26,000.

II. The bill does not increase materially the existing salaries. These salaries, on the average, are much less than the salaries paid in colleges and universities of similar rank and importance, while the hours of teaching at the Naval Academy are longer, as shown in the hearings, as follows:

Columbia University, New York, pays professors \$5,000 per annum, and to professors who are heads of departments, \$7,500.

HARVARD.

Professor	\$3,500-\$5,000
Associate professor	3,500
Assistant professor	3,000
Instructor	1,500

Professors start at \$3,500 and receive an increase of \$500 every five years until \$5,000 is reached; retirement with salary at age of 60.

Professors have every seventh year a year's leave on full pay.

WEST POINT.

Professor, \$3,000 to \$4,500 and quarters, light, and heat.

Associate professor, \$2,000 to \$3,500 and quarters, light, and heat.

Assistant instructor, \$2,000 to \$2,800 and quarters, light, and heat.

Civilian instructor, \$2,000 and quarters.

Professors retire at 62 and while on duty have every seventh year a year's leave with full pay.

ANNAPOLIS.

Professor, \$2,200 to \$2,500 and quarters if bachelors and not too many.

Instructor, \$1,500, \$1,800, and \$2,000.

Average pay of professors is as follows:

Clark University	\$3,000
Stanford University	4,000
Cornell University	3,231
Johns Hopkins University	3,184
Harvard University	4,408
Stevens Institute of Technology	3,000
Massachusetts Institute of Technology	3,192
Columbia University	3,747
University of Pennsylvania	3,500
Yale	3,500

III. The bill provides retirement under just conditions. Many colleges and universities of similar character have their provision. Other colleges as a rule have in addition a provision for one year's leave in seven on full pay.

IV. At West Point, the professors are given positive rank, ranging from colonel down to major.

V. Provisions such as is made in this bill has been recommended by the Board of Visitors as appended in the hearing.

As this bill is wholly based on the recommendations of recent boards of visitors to the Naval Academy the following extracts are presented:

Report of 1904; report of committee No. 3:

Attention should be called to the position of civilian instructors. They commonly receive, when appointed, \$1,500 a year, without quarters or commutation

therefor. Living in Annapolis, for a small family, amounts to about \$1,500 a year, and this does not provide for clothing. It would be only a matter of justice, as well as expediency, to give civilian instructors and professors quarters or the commutation now allowed to officers performing like services, and to give them the privilege of purchasing coal and wood at Government rates. Furthermore, the whole status of civilians could be greatly improved by holding out to them the possibility of earning, by good service, a commission as professor in the Naval Academy, with retirement for age.

Recommendations:

3. That civilian professors and instructors be provided with quarters or the commutation now allowed to officers performing like service, and to give them the privilege of purchasing coal and wood at Government rates.

4. That after good service for a term of years civilian instructors receive commissions as professors at the Naval Academy with retirement for age.

Report of 1905: recommendations:

5. That civilian professors and instructors be provided with quarters or commutation therefor as now allowed to officers performing like service; that they have the privilege of purchasing coal and wood at Government rates, and that provision be made for their promotion and increased compensation as they progress in experience and efficiency.

We regard the foregoing as a requirement of simple justice to an accomplished and deserving number of civilians who are rendering efficient and valuable service in the training and developing of officers for the Navy. At present they have no hope of promotion or increase in compensation as an incentive to excel in their work, such as obtains in every other branch of the civil service.

Report of 1906: recommendations:

13. Commutation for quarters for civilian professors and instructors, with the privilege of purchasing coal and wood at Government rates.

14. Longevity pay for professors.

Report of 1907: recommendations:

7. That civilian professors and instructors should have the privilege of purchasing coal and wood at government rates and should receive an allowance for quarters and an increase of pay commensurate with the length of their service at the Academy.

The above recommendations are unanimous concerning longevity pay and commutation for quarters, fuel, and light, and the report for 1904 recommends provision for retirement.

VI. In 1906 the House of Representatives passed H. R. 5276, which provided quarters and commutation of lieutenant-commander for civilian professors and instructors, which is greater than those provided by the present bill.

VII. The Navy Department reports adversely on this bill as follows:

SIR: The Department is in receipt of your letter of March 2, 1908, requesting its views with respect to a bill (H. R. 14651) "to provide for the appointment and compensation of civilian professors and civilian instructors at the Naval Academy."

While it is believed that the compensation allowed civilian professors at the Naval Academy could, with propriety, be increased, the Department is not in favor of any measure which would tend toward rendering permanent the employment of civilian professors and civilian instructors, because it is deemed of the first importance that the midshipmen be instructed in all scientific and professional branches by officers of the Navy rather than by civilians—this instruction being never purely academic, but of such a nature that the idea of discipline necessarily runs through the course in every department of study.

In view of the foregoing, and for the further reason that the bill (H. R. 14651) contemplates the establishment of a civil retired list by creating the rank of "professor emeritus," the Department recommends adverse action thereon.

Very respectfully,

V. H. METCALF,
Secretary.

HON. GEORGE EDMUND FOSS,
Chairman Committee on Naval Affairs,
House of Representatives.

VIII. The objection is not well taken. In departments like those of language, English, physics, and chemistry the necessity for specialists is absolute. The fighting officers are not and should not be required to become specialists. They could not become sufficiently skilled and competent with their intermittent service at sea and ashore alternately. The proposition that all instruction should be given by officers would both lower the grade of instruction and the efficiency and professional worth of the officers. As a matter of fact, there have been specialists, not fighting officers, for such instruction ever since the Naval Academy was founded. There are such at West Point, and at every similar institution in the world.

Discipline is maintained in the section rooms at the Naval Academy under civilian professors. The Secretary of the Navy in making appointments to the grade of professor can safeguard any chance of individual incapacity when making his appointment, choosing from the civilian instructors only those who have shown the capacity to maintain discipline.

Since the appointments of civilian instructors are made and renewed annually, there is ample provision for eliminating those who do not maintain discipline.

The provisions of this act elevate and dignify the position of professors and instructors, thus tending to improve the respect and discipline in the section rooms.

IX. The bill would not start a "civil retired list." The provision is specific and relates to only 10 professors at this particular institution: men who during long years perform precisely similar duty as naval officers attached to the academy.

X. Therefore, I would respectfully recommend that the subcommittee report this bill favorably.

STATEMENT OF HON. JOHN W. WEEKS, REPRESENTATIVE FROM MASSACHUSETTS.

Mr. WEEKS. Mr. Chairman. I introduced a bill for this general purpose last year, and again this year; but I think the bill introduced by Mr. Hobson subsequently is somewhat preferable to mine, and I have no especial pride in the original bill which I introduced.

There are two questions which the committee ought to consider in this matter: First, whether the professors and instructors are being properly treated as their duties are now arranged; and secondly, whether it is desirable or not to have a definite and distinct corps of professors and instructors at the academy.

I agree with Mr. Hobson in regard to the second question, that it is eminently desirable that men who are professional teachers should fill positions at the Naval Academy in which professional instruction is not given. It is a fact that officers are detailed to the academy as instructors (and I use the word "instructor" as Professor Brown has explained it) who may or may not be good teachers. They are taken for that duty because they have performed a term of sea duty, are due to have shore duty, and are sent there instead of being sent to a navy-yard or to some other place.

The committee can readily see that a man may have all the mental qualifications of a teacher but not be a teacher at all. He is not a

professional teacher. He may not have any aptitude for teaching. From my own experience in the Naval Academy I can say that there were many officers there who were thoroughly well informed after they had used a year to "bone up" on the particular subject which they were teaching, but who had no aptitude as teachers. They simply heard recitations. For that reason, in my judgment, it is desirable that there should be a corps of civilian instructors at the Naval Academy who should be properly provided for, and who should be permanent to such an extent that topics which are not professional should be taught by them.

Mr. DAWSON. We have always had this corps of civilians, have we not?

Mr. WEEKS. It has been irregular. At times there have been very few civilian instructors there. Just now there are a great many; because the academy has been, as you know, very much increased. The number of midshipmen has been very largely increased, and there have not been officers available for that duty. Therefore civilians have been called in to perform it. But I believe that the best of them should be retained; and I just want to give one instance, Mr. Chairman, of what seems to me to be a case, perhaps not of gross ingratitude, but of utterly inadequate provision for this service, and that is the case of Prof. W. W. Johnson.

Undoubtedly he is one of the first mathematicians in this country. He has written and compiled very many of the text-books used at the Naval Academy, and used throughout the world, especially in differential and integral calculus. Yet that man, although now 65 or 66 years old, can not be retired. He has been connected with the academy most of the time for over forty years, and he is receiving \$2,500 a year—I think it is \$2,500. If he were connected with any college in this country he would be receiving \$5,000 a year, and provision would be made for his retirement, at least under the Carnegie fund which is now provided. That is the best illustration I can give of the inadequacy of the provision for civilian instructors at the Naval Academy.

Mr. DAWSON. Do you recall what salary he is getting now?

Mr. WEEKS. Two thousand five hundred dollars.

Mr. GREGG. Mr. Weeks, as I understand you, as it is now, when men have come off the sea, having served their sea duty and are entitled to shore duty, they very often send some of them over there?

Mr. WEEKS. Yes—you mean officers?

Mr. GREGG. Yes; and they are changing the corps of teachers in that way, treating them as teachers instead of officers.

Mr. WEEKS. An officer remains there two or three years.

Mr. GREGG. And then they are changed, and they put somebody else there?

Mr. WEEKS. Yes, sir.

Mr. GREGG. Take such studies as pure mathematics and the languages, such as French and Latin, and chemistry—in other words, things that are not technical. It occurs to me that if we had a corps of civilian professors for those branches it would be better than this perpetual changing and getting some there that have got to brush up themselves and perhaps are not fitted for teaching anyhow. There are lots of people that know things that can not instruct.

Mr. WEEKS. That is my own judgment, Judge. I want to say that one of the objections which is made by the Navy Department and by line officers of the Navy to this is that it is absolutely essential that discipline should be maintained at the academy in the section room as well as in other places. The question of discipline depends on the instructor himself. The ability to maintain discipline is a personal quality which a man has. I can say to this committee that in my time there were civilian instructors there who maintained as good discipline as could be maintained by any man. If an instructor is sent there who can not maintain discipline, in my judgment that would be one of the reasons for disqualifying him and filling his place with somebody who could. But there is a corps of professors at the Naval Academy who are discipline officers, and outside of the section room it is their business to maintain the discipline in the corps.

Mr. GREGG. What do you think of the weight of the question of discipline in the section room? Is there much in it, anyway? I should like to have your opinion on that matter—if there is any weight in that?

Mr. WEEKS. Yes; there is weight in it. The whole course at the Naval Academy is based on method and order and discipline. The best quality which is turned out in the graduate of the Naval Academy or the Military Academy is the order and method and discipline which he obtains there. That should be maintained in the section room and in every other place. As you know, the midshipmen in going to their recitations are mustered, marched to the recitation, not allowed to speak to one another on the way, not allowed to open their text-books on the way; they march into the section room, are seated by command, and when the recitations are over they rise and march out in military manner. In my judgment it is essential that that whole system should be maintained, not only in the section room but in every other part of the academy.

The CHAIRMAN (after an informal discussion). Is there anything more on this bill? If not, we will pass it for the present, and it will be considered in executive session.

[No. 90.]

**STATEMENT OF DR. WILLIAMS DONNALLY, OF WASHINGTON,
D. C., BEFORE SUBCOMMITTEE ON ORGANIZATION, RANK, AND
PAY.**

March 11, 1908.

The CHAIRMAN. We will hear now from Doctor Donnally on this dental matter, H. R. 16620, a bill authorizing the appointment of dental surgeons in the Navy.

Doctor DONNALLY. Mr. Chairman, I have appeared at so many hearings before this committee that I am ashamed to come to you to add anything else. The fact is that there have been bills presented that it must be confusing. The matter has been very much simplified by the recommendations of the Department and of the action of this committee in reporting favorably, on February 3, 1905, and March 9, 1906, a bill by Mr. Cousins. We are, under the circumstances, willing to accept that bill, so far as the National Dental Association is concerned.

I wish to state that, while I represent the National Dental Association, we are in perfect accord with the Navy Department, and are acting in perfect harmony with it. I spoke to the Surgeon-General a few days ago about this matter, and he stated that there was nothing further that his Department could possibly do; that it had made a very strong report, which was supplemented by a strong report from the Secretary, in these few words:

In regard to dental surgeons, without regard to humanitarian conditions, the economic importance of proper dental care in the interest of the general health of the personnel of the Navy is no longer a matter of doubt. Reports from two of the stations where dental treatment is now given by the hospital-corps men who have some knowledge of dentistry embrace 4,631 cases of emergency relief.

In the Surgeon-General's report—

The CHAIRMAN. I think, Doctor, we are all convinced as to the necessity of some kind of a bill. The question is, What sort of a bill shall it be? I want to call your attention to the bill which has passed the Senate for the Army—Senate bill 4432. Are you familiar with that?

Doctor DONNALLY. Yes, sir; I am perfectly familiar with that.

The CHAIRMAN. How does that differ from the bill that you are in favor of?

Doctor DONNALLY. That provides for the reorganization of a dental corps that has been in existence seven years in the Army. It puts them on a commissioned basis, gives them the right of promotion through three grades (from lieutenant to captain and to major), and is a very satisfactory bill to the Surgeon-General, and especially so to the dental profession. That bill has twice passed the Senate, and has

once been recommended by the House Military Committee; and it is expected to again be taken up in a few days.

The CHAIRMAN. It is much more liberal. I understand, than the bill that was before us for the Navy.

Doctor DONNALLY. Yes, sir. I have both bills before me. The one of which you speak provides for three grades of rank, organized as a regular corps, subordinate to the medical department. It was unanimously reported by the Senate committee and passed the Senate without a dissenting vote. We think a similar bill for the Navy far better, but however willing you gentlemen may be to report such a bill, we realize that it is better to accept the Navy Department's bill, because it more nearly meets the approval of the chairman of the Senate Naval Committee.

This gives the President the right of removal at any time, at his pleasure. Of course a regular officer could only be discharged by a court-martial; but this gives the Navy dental surgeon the dignity and all the rights of a regular officer for the time, and would make him a very much more useful man in the service than a contract man.

We are heartily opposed to the contract system. It has become odious in the Army, and in all probability, will be completely done away with in a very short time. The Army medical bill has passed the Senate three times, and I understand that on the first suspension day Mr. Young, of the Military Committee, is to be recognized by the Speaker to put this bill on its passage, and that will do away altogether with the contract system of employing surgeons in the Army. The Navy Department has reported against the contract system in very strong words. Referring to the Army system, the Secretary of the Navy said:

The contract system of employment of officers is foreign to the naval practice, and its adoption in the case of dental surgeons is not deemed advisable, as some of these officers, if any be appointed, may be required to serve on board ships where, it is thought, all persons should be a part of the regular naval establishment.

I may say that in the service there is no place in a military community for a civilian—no place for a contract man. The position does not command respect; and it has become impossible for you to attract to a contract service competent, self-respecting men.

The CHAIRMAN. Now, Doctor. I understand—we have not very much time for a full hearing; we have heretofore had very full hearings on this whole proposition—

Doctor DONNALLY. You have had, many times. I wonder at your patience. All I have to say is that if you report this bill and try to get it through we will be satisfied.

The CHAIRMAN. This is the same bill, as I understand, upon which we had a very full hearing last year or year before?

Doctor DONNALLY. Yes, sir; and it was reported twice. But I may say that there is a slight change that was suggested by the Judge-Advocate-General—a change of "Bureau of Medicine" to "Medical Department," and one or two little things like that that have no bearing at all on the general purpose.

One other thing I want to ask your attention to for just one minute is this: In the Surgeon-General's report there are mentioned two deaths recently reported from dental disorders; and I want to cite

this one statement from the Surgeon-General's Annual Report for 1907:

Like the eyes, the teeth are coming properly to be regarded as intimately and widely associated with the various organs and functions of the body, and that defective teeth may be responsible for much ill health is recognized by all who keep in touch with the accumulating truths of medical science. The naval surgeon is alert to detect dental disorders early lest an aggravation of them produce grave illness. He, however, has not that special knowledge required to fit him to cope with diseased teeth in a final manner. He can and often does put in temporary fillings and treats the medical and surgical complications incident to dental disorders and often extracts such teeth as are not worth preserving, but naval surgeons are not expected to deal with dental disorders in a radical manner. The practice of dentistry requires a special education and training.

The teeth and the mouth are indubitably important factors in the causation of certain diseases of bacterial origin. This is not a hypothetical conclusion, for it has been proven beyond doubt that not only are bacteria found in great numbers in uncared for and neglected mouths, but their disease-producing properties are greatly increased, particularly in and about decayed teeth. Much of the tonsillitis and pharyngitis in the Navy can undoubtedly be traced to bad teeth, as can also deranged digestion and general physical deterioration. In this connection it is not improbable that the teeth are an important contributory factor in tuberculosis by producing a state of lessened resistance to the disease by the constant absorption of poisonous matter.

In thus indicating the prominent reasons for the Navy's need of proper dental services, it may be added that a bad tooth may occasionally give rise to serious complications, which may even endanger life.

Surg. W. H. Bell, writing from Camp Elliott, on the Isthmus of Panama, says:

"During February (1905) a problem presented which gave us considerable worry, as there appeared no immediate solution. It concerned some very necessary dental work which 35 or 40 of the command required to have done. Quarantine was then in force against Panama on account of yellow fever, and that fact, therefore, excluded us from the possibility of sending our men there for dental services, and as there was no dentist in Colon or anywhere else along the line the problem became a difficult one. We tried in vain to persuade one or the other of the American dentists on the Isthmus to come to camp with his outfit, and the only other resort was a native dentist, whose work, as far as it came under our observation, was so inferior that we hesitated to employ his services, but even he finally would not come. It was an experience which forcibly indicated the need of dental surgeons in the service. The end of the whole matter was the detachment of most of the men without having received any but palliative treatment and their transfer to Santo Domingo, where their chance for needed attention was, if possible, worse."

This quotation is only one of many similar reports from the various naval stations and ships, and with reference to our extensive service in equatorial latitudes it is to be pointed out that teeth deteriorate with particular rapidity in the Tropics. The importance of having skilled dentistry within the reach of those on duty in the outlying and isolated stations is evident, and at the large stations, where recruits are assembled and apprentices are trained, the value of the service of such professional attention is of no less moment.

Dental surgeons are needed in the Navy quite as much as, if not more than, in the Army, which service enjoys free treatment by dentists employed in accordance with law, and it seems an unjust discrimination against the enlisted men of the Navy not to provide for similar dental work, especially in view of the universally recognized economic importance of sound teeth in military service.

That experience at Panama should forcibly attract attention. The end of the whole matter was the detachment of thirty-five or forty men without having received any treatment and their transfer to Santo Domingo, where the chance of needed attention was, if possible, worse. They employed a ship and sent thirty-five or forty of those men about a thousand miles for dental service. I could cite several

cases of that kind to show the importance and economy of an efficient and adequate dental service, but I have nothing further to say than that we heartily favor this bill (H. R. 16620) and ask for its enactment for humanitarian reasons. We do not think it nearly as satisfactory as the army dental bill passed by the Senate; but we believe that there is a chance to get this bill through, and we do not believe that there is any chance to get the other bill through the committee of the Senate.

Mr. GREGG. Who introduced it?

Doctor DONNALLY. It was prepared by the Navy Department and offered by Representative Butler, of Pennsylvania. Here is a letter from the Navy Department, dated March 3, approving and recommending this bill, H. R. 16620.

Mr. GREGG. Mr. Butler introduced it.

[No. 91.]

**STATEMENT OF HON. J. W. WEEKS ON H. R. 4924, A BILL FOR THE
RELIEF OF RETIRED OFFICERS OF THE NAVY, BEFORE SUBCOM-
MITTEE ON ORGANIZATION, RANK, AND PAY.**

March 11, 1908.

Mr. WEEKS. Mr. Chairman, that bill has been favorably reported from this committee not only once, but twice, and I think three times. It is a perfectly plain statement of what is desired. The Department has the option of taking any officer on the retired list and ordering him to active duty. Many men are retired for some physical disability which does not make them unable to do duty in other latitudes. Therefore it would seem reasonable that men who are retired through no fault of their own, but on account of some disability which is incident to the service, should receive the benefit of the active service which they perform after they are retired. Ordinarily those men take up some other occupation; and the Department may, without any notice whatever, take them away from their other occupation and order them to duty and keep them on duty for a long term of years, and they get no benefit whatever from longevity pay or any other pay than the pay of the rank on which they are retired while they are on duty.

Mr. GREGG. They get active pay, do they not?

Mr. WEEKS. They get active pay; but there are cases of ensigns and junior officers who are very seriously incommoded, and I think unjustly treated, by this right which the Department has to detail them for active service. It is a matter that rests entirely in the hands of the Department. If the Department does not need their services, they can be detached and sent home at any time before the three years provided in this bill is up, and then they would receive no benefit from the bill; but if they are going to be kept on active duty, it seems to me they ought to have some proportional reward for performing duty which otherwise would be required of active officers.

The CHAIRMAN. Now, gentlemen, are there any further questions? If not, we will take up the consideration of these various bills.

(The committee thereupon went into executive session, after which it adjourned.)



[No. 92.]

**EXPENDITURES FOR THE NAVY DURING THE EARLY YEARS OF
THE HISTORY OF THE UNITED STATES.—DEPARTMENT LETTER.**

**Navy Department,
Washington, March 12, 1906.**

SIR: I have your letter of the 6th instant in reference to the expenditures for the Navy during the early years of the history of the United States. I find that there is some matter bearing on this subject in the files of my immediate office. As the Navy Department was not established until 1798, there is no way of segregating the cost of the portion of war expenditures relating to the Navy up to that time from the total sum. In 1800, however, the expenditures for the Navy amounted to \$3,448,716. This was for a Navy consisting of 36 vessels and 9 galleys, or approximately \$76,000 per annum per vessel, without considering tonnage. These 45 vessels had a total tonnage of 23,000 tons, and the cost per ton of that Navy was approximately \$150.

Between 1801 and 1810, practically the only seagoing naval force maintained by the United States Government was that engaged in the expeditions against the Mediterranean pirates. This was the period of Jefferson's gunboat policy, during which a number of small gunboats were maintained at different points along the coast. The average annual expenditure for this establishment during that decade was \$1,636,732. The average annual expenditure for the ten years, 1811-1820, was \$4,675,502, utilized in constructing and maintaining a fleet of 64 ships of a tonnage of 38,580. The naval expenditure, therefore, during the period 1811-1820 was approximately \$73,000 per year per ship and \$121 per ton per year.

It must be understood that the foregoing amounts of cost per ship and per ton are expressed in money values as they existed at the beginning of the nineteenth century. A dollar of that date represented a far different standard of value than that of a dollar at the present time. This is very forcibly shown by the comparison in the pay of naval officers between the two periods. A captain of a ship of the largest size received \$100 per month and eight rations per day, equivalent, at the value of the ration at that time, to, approximately, \$2,000 per year. A captain in the Navy, at the present time, receives, according to his length of service, from \$4,500 to \$5,000 per year. At the least calculation, and I think it is the usual practice to so estimate the comparative value of a dollar, a dollar in 1800 should be regarded as double the value of a dollar at the present time. The final comparison of cost should be upon the cost per ton per year, since there can be no effective comparison, ship with ship, between the vessels of the two dates. There are now on the Navy list, includ-

ing vessels under construction, the progressive cost of which is, of course, included in the annual expenditures, 316 vessels. The total actual expenses for the Navy Department for the fiscal year 1905 were \$115,908,324. This is an annual expenditure per ship of approximately \$366,000. As the ships of the old Navy were rated on gross tonnage, it is necessary to take a similar computation for the ships of the new Navy, which are usually spoken of in tons' displacement instead of gross tonnage. The gross tonnage of the present Navy, built and building, is approximately 529,000 tons. This would give a cost per ton, on the basis of last year's expenditures, of \$220.

It appears, therefore, that while the expenditure per ship is greater than during the period 1811-1820, a condition which would logically follow from the very great increase in the size of the ships in all rates composing the present Navy, the cost per ton of creating and maintaining the Navy, at the present time, as compared with the cost per ton of creating and maintaining the Navy of the period 1811-1820, may be fairly stated as \$242, representing the cost per ton at the earlier date, at a proper valuation of the dollar of that time, as against \$220 per ton, the present cost of naval construction and maintenance. Taking into consideration, further, the fact of the complexity of the modern vessel of war as compared with the simplicity of the structure with which naval warfare was waged at the beginning of the nineteenth century, it seems to me that the conclusion is justified that construction and maintenance is being carried on with a far smaller percentage of administrative and supervisory expenditure than was the fact during the early period of the Navy—that is to say, that a much larger proportion of the expenditure appears in the form of assets, more or less permanent, and a smaller percentage in expenditure for purposes which do not definitely appear in the results attained. The exact facts as to this point might be obtained by a closer comparison, could reliable data as to the earlier period be secured. This, however, would probably not be possible, and I think the figures before given, taken in connection with well-known historical facts, would warrant the statement that naval administration is being carried on at the present day with an improvement as compared with the administrations covering the first twenty years of the history of the Navy Department in the ratio above stated—that is, as \$242 per ton of naval strength is to \$220 per ton.

Very truly, yours,

CHARLES J. BONAPARTE,
Secretary.

HON. GEORGE EDMUND FOSS, M. C.,
House of Representatives.

[No. 93.]

APPROPRIATIONS FOR AND EXPENDITURES BY THE NAVY DEPARTMENT FROM MARCH 4, 1789, TO JUNE 30, 1876.

**Navy Department,
Washington, March 13, 1906.**

SIR: In accordance with your request by telephone to-day, I beg to inclose a statement of the annual appropriations for the Navy Department, which was drawn off from Executive Document No. 3, Forty-fifth Congress, first session. This statement was transmitted to Congress in answer to a Senate resolution of October 16, 1877, requiring information in relation to the appropriations for and expenditures by the Navy Department from March 4, 1789, to June 30, 1876. Although the title given is that of "Appropriations for the Navy Department," it does not include the appropriations for the support of that part of the Navy Department which is appropriated for now in the legislative, executive, and judicial appropriation bill, and, so far as I have been able to determine, does include items equivalent to those appropriated for in the naval appropriation act. The scope of the inclusion seems to be not only the current appropriation in each year, but the deficiency appropriations as well, so that the statement gives the total appropriations equivalent to the naval appropriation act, including deficiencies, up to and including 1876. I think no similar compilation has been made since the date of the document to which I refer which collects the appropriation for any given year, including deficiencies, but, as I understood your purpose was to secure data for comparison of the earlier scale of expenditures for the Navy with that at the present time, this statement may meet your needs. You will note that in 1796 and 1802 the appropriations were very small, this, undoubtedly, being due to the fact that appropriations for that time were continuing ones and the amounts appropriated in previous years were available. I have had the tables arranged in ten-year periods, in order that easy comparison by decades may be made.

Very truly, yours,

CHARLES J. BONAPARTE,
Secretary.

HON. GEORGE EDMUND FOSS, M. C.,
House of Representatives.

Amount of annual appropriations, Navy Department.

Year.	Appropriation.	Year.	Appropriation.	Year.	Appropriation.
1794	\$768,888.82	1824	\$2,948,909.29	1854	\$12,198,108.37
1795		1825	3,667,706.31	1855	10,447,751.77
1796	5,000.00	1826	3,738,985.23	1856	14,283,118.49
1797	487,000.00	1827	3,709,490.35	1857	12,716,584.56
1798	2,024,712.00	1828	3,898,205.04	1858	12,173,509.38
1799	3,813,789.89	1829	3,845,008.13	1859	14,906,329.49
1800	2,482,953.49	1830	4,316,000.47	1860	10,279,488.08
1801	3,042,352.95	1831	3,496,643.29	1861	23,305,139.51
1802	1,719.00	1832	4,456,573.53	1862	55,700,422.74
1803	1,144,797.46	1833	3,867,872.01	1863	143,916,799.35
1804	1,667,496.45	1834	4,548,252.95	1864	118,916,286.23
1805	1,550,000.00	1835	4,966,734.13	1865	124,862,467.07
1806	1,662,141.44	1836	6,787,667.96	1866	2,156,197.87
1807	2,429,564.47	1837	7,465,057.60	1867	20,083,616.56
1808	1,131,567.80	1838	5,076,336.28	1868	16,642,969.11
1809	2,916,902.50	1839	5,888,930.96	1869	17,667,279.48
1810	1,664,640.69	1840	5,789,679.40	1870	17,906,952.77
1811	1,370,274.05	1841	7,418,086.64	1871	20,617,650.38
1812	4,304,669.60	1842	6,632,386.63	1872	21,192,081.46
1813	9,510,788.55	1843	3,641,300.97	1873	23,635,779.69
1814	8,174,910.87	1844	6,048,456.51	1874	26,197,216.06
1815	5,258,686.25	1845	5,858,080.27	1875	19,108,134.49
1816	4,234,798.77	1846	8,982,028.10	1876	18,672,735.06
1817	3,814,598.49	1847	7,591,784.61		
1818	8,506,966.00	1848	10,330,808.80		
1819	3,427,306.95	1849	8,957,107.99		
1820	4,042,990.00	1850	8,586,173.54		
1821	2,709,243.96	1851	8,607,046.67		
1822	3,141,681.52	1852	6,979,442.18		
1823	2,822,484.63	1853	8,371,406.71		

[No. 94.]

**SUBCOMMITTEE OF THE COMMITTEE ON NAVAL
AFFAIRS.**

Thursday, March 12, 1908.

The subcommittee this day met, Hon. Arthur L. Bates in the chair.

There were also present Hon. Harry L. Maynard, a Representative from Virginia, and Messrs. A. H. Martin, of Norfolk, Va.; T. J. Wool, of Portsmouth, Va.; and Henry St. George Tucker, of Lexington, Va.

**STATEMENT OF MR. TRUMAN H. NEWBERRY, ASSISTANT SEC-
RETARY OF THE NAVY, ACCOMPANIED BY COMMANDER H. B.
WILSON, U. S. NAVY.**

Mr. BATES. The Assistant Secretary of the Navy is present to give us his views as to the advisability of purchasing the property of the Jamestown Exposition. We will hear from you, Mr. Secretary.

Mr. NEWBERRY. A delegation representing the Jamestown Exposition Company called at the Navy Department some few days ago and I explained to them then the attitude of the Department in regard to this property. The Navy Department can not and does not wish to ask for any appropriation for this purpose. If the amount mentioned in the bill is to be appropriated for the Navy Department, there are many other more desirable ways to expend that money than in the acquirement of this land. If, however, Congress in its wisdom decides to acquire the property the training service of the Navy could use it better than any other Department of the Government of which I have knowledge.

We have now a training station—rather the apprentices are attached to the *Franklin* and most of them are ashore in tents.

Mr. HOBSON. How many have you there?

Mr. NEWBERRY. How many, Commander Wilson?

Commander WILSON. From 1,200 to 1,400.

Mr. NEWBERRY. Because of the climatic conditions and the general surroundings of the place this property could be used most advantageously for that very purpose.

Mr. HOBSON. How much would have to be expended to put this property into shape for the purpose?

Mr. NEWBERRY. The only expenditure that that property would require in the course of twelve months would be the installation of some sort of a heating plant and minor operations, which do not amount to anything.

Mr. BATES. How much of a recruiting station have you there now?

Mr. NEWBERRY. They have the old ship *Franklin*, which is opposite the navy-yard, connected with the shore by a gangway, and the men

while attached to the *Franklin*, most of them live ashore, and there are 1,200 there now. It is not and never has been, I might say, legalized, because the men are on the *Franklin* and all their equipment and stuff belong to the *Franklin*. There are some old buildings used now for various purposes, but never built for a training station. The only training station on the Atlantic coast is at Newport, and that is filled up, and more too. The boys there are living in a most unhappy condition, but it is the best we can do without an appropriation. If we had the property and the buildings erected on it, we could move them right there by securing a maintenance fund of approximately \$80,000 or \$100,000 and the station would be run as well as at Newport: but I do not want to be understood as saying that the Navy Department is recommending any expenditure in connection with the same: I only want to explain how advantageously it could be used by the Navy Department if acquired by the Government.

Mr. THOMAS. The important question is whether the Navy Department really recommends the purchase of this property?

Mr. NEWBERRY. It does not, but in case it is purchased by the Government it could be well used by the Navy Department.

Mr. MAYNARD. They do not disapprove of it?

Mr. NEWBERRY. No, sir.

Mr. GREGG. Did I understand you to say that if the Congress appropriated this much money that there were other places to put it?

Mr. NEWBERRY. That is my own personal view, that there are other places where it could be spent to better advantage for the Navy than by acquiring more real estate.

Mr. HOBSON. Do you regard a first-class naval station as important at that location?

Mr. NEWBERRY. I do consider it of the highest importance.

Mr. HOBSON. Is the demand for it urgent?

Mr. NEWBERRY. I think it is urgent. The situation in regard to these boys who are living in tents down there is unhappy, as I say. We do the best we can, but that is not an ideal or proper condition.

Mr. HOBSON. In the event that the Government should undertake to meet this need for a training station, would you recommend the purchase of this property or the establishment and building of a station elsewhere?

Mr. NEWBERRY. From my knowledge of navy-yards and needs of the Navy, I think it is the most desirable property I have seen.

Mr. HOBSON. Are you familiar with the island below there on Elizabeth River?

Mr. NEWBERRY. Yes, sir; I have been there a great many times. That is where I began my naval career. The first ship I was on was the *Franklin*.

Mr. HOBSON. And are you familiar with the possibility of its being increased to about 500 acres at reasonable cost?

Mr. NEWBERRY. I do not. Maybe Commander Wilson knows something about that.

Mr. HOBSON. It is called Craney Island.

Mr. NEWBERRY. That is a matter of litigation. The Navy Department used part of that land as pesthouse and a quarantine station. The owners of the adjoining property on shore have some claims. My recollection is that the Navy Department has abandoned it and that it belongs to the War Department.

Mr. HOBSON. I have been informed that round that island there is only a few feet of water, and it is estimated that about 500 acres could be reclaimed, including the present part out of water, and that one whole side would have deep water. With your knowledge of the conditions between the two properties, to purchase the existing improved property from the exposition or of reclaiming this property around this island and building the station there, which would you recommend?

Mr. NEWBERRY. I would take the real land. I do not believe you would ever know what it would cost to fill that marsh.

Mr. HOBSON. Now, we, of course, appreciate thoroughly how reluctant the Department is to recommend any additional appropriation beyond what it has already recommended. We are anxious to find out whether, all things considered, this purchase should be made now. If it appeared that this property might be lost by delay, would the Department recommend its present purchase?

Mr. NEWBERRY. If there were no more available sites? I do not understand exactly the question.

Mr. HOBSON. The question is, if by not purchasing this property now we might lose the property, would you recommend the purchase under those circumstances or the postponement of the establishment of a station and its establishment elsewhere?

Mr. NEWBERRY. I do not think it is exclusively the only site in that neighborhood; there may be other sites.

Mr. THOMAS. What training stations have we now?

Mr. NEWBERRY. One at Newport and one they are building north of Chicago on Lake Michigan.

Mr. THOMAS. The one at Newport, is that the only one on the Atlantic coast?

Mr. NEWBERRY. Yes, sir; the only one.

Mr. THOMAS. Are they doing anything in that way at Annapolis?

Mr. NEWBERRY. No, sir; nothing at all.

Mr. THOMAS. Do you not think Annapolis would be a better point?

Mr. NEWBERRY. Not at all; it is not a good place.

Mr. HOBSON. Is there any other point which you think would be as good as this location?

Mr. NEWBERRY. I do not know of any point that would be as good. From what I know of the Atlantic and Gulf coast and of the navy-yards and stations on it, I consider this the best point.

Mr. HOBSON. Would there be substantial advantage in the fact that this property is already improved?

Mr. NEWBERRY. It would be a great advantage because of the immediate occupancy that could be acquired: we could go right into the property in the spring and summer months and the heating could be taken up later in the fall. It would require something for maintenance, which is not now appropriated, but that has to come anyway sooner or later.

Mr. HOBSON. Have you inquired sufficiently to be able to recommend a limit on the cost in case the purchase of this property was determined upon?

Mr. NEWBERRY. I have no idea whatever of the value of the property.

Mr. GREGG. We own the land on St. Helena Island where the training station is now?

Mr. NEWBERRY. We own the land.

Commander WILSON. There is a fine piece of land there.

Mr. NEWBERRY. It goes right into the city of Norfolk.

Mr. THOMAS. Is there a real necessity for another training station besides the one at Newport?

Mr. NEWBERRY. I think there is. Commander Wilson is more familiar with the training station service, and I would be glad if the committee would hear him. He can tell the value of the property and the necessity of two training stations on the Atlantic coast.

Commander WILSON. Norfolk is well situated in regard to bringing anybody from the West. If we bring a man enlisted in the West, west of Sandusky, and he is bound anywhere, to Newport or New York, he comes via Norfolk. We get better rates on the railroads and the roads handle our people better. Norfolk is the place where every ship stops. No matter where she is going, she generally drops into Hampton Roads before departure. At Newport during the winter time we had some 18 deaths from meningitis. We have the best facilities for it there: we have detention camps, and we look out for them when they come, and keep them under observation for thirty days.

Mr. HOBSON. Is that due to the location?

Commander WILSON. It generally affects people under 21 years of age. They evidently come with the disease and then in the damp climate in the winter time it develops. One man may come with the disease and infect several others.

Mr. MAYNARD. You have not had that disease at Norfolk?

Commander WILSON. Sometimes in the winter there are two or three cases, but we generally find that the people have brought it with them. It develops very rapidly at Newport which is not the case at Norfolk.

Mr. BATES. The climate affects them?

Commander WILSON. We drill the men in the open at Norfolk and in the winter time at Newport we have to drill them inside. When a man goes aboard ship you can tell whether he is from Newport or Norfolk by his color. Of course that is from living in tents. It makes more desertions; ten to one more from Norfolk than from Newport and that is due to nothing but the way they live and the way they eat. Now, for instance, everything at St. Helena has been built up from scraps around the place. Every time the captain finds a plank he lays it aside and when he gets enough they build a building.

Mr. THOMAS. The infantry live in tents?

Commander WILSON. Yes, sir; in the field, but they do not live in tents when they are first being trained and when they are getting their first impression of the service. These boys come there and if their first impression of the Navy is all right it has a good effect. They are put into tents and we have to have three relays for meals; they march in one branch and as soon as they are finished they march them out and march in another branch. At one time we had some 3,000 people at that place where there has never been any appropriation for a station.

Mr. BATES. What time of the year was that?

Commander WILSON. The winter time. We had to march them in five batches to dinner, starting in at 11 o'clock and getting through

dinner after 1 o'clock and the same way with breakfast. All we pretend to do at a training station is to teach a recruit when he comes in to keep himself clean, look out for his clothes, and then instill the military spirit, and make him get his training on board ship in the fleet.

Mr. HOBSON. Do you think it is important to develop a first-class training station on the Atlantic coast?

Commander WILSON. Yes, sir. I think a training station pays for itself many times from the fact that you there weed out the undesirable recruits. A recruiting officer may have a man walk into his office, but he has no way of knowing, by looking at him, whether he is getting a good man. We weed out a great many at the training station where they are examined. They are also weeded out by the petty officers. Any man that can be weeded out as undesirable before he gets into the fleet makes a great saving, because if he gets on a ship he will contaminate a number and take them off with him.

Mr. HOBSON. With your knowledge of the Atlantic coast line, what location would you recommend for the establishment of a first-class training station in case the establishment of a training station should be decided upon?

Commander WILSON. It is in the vicinity of Hampton Roads. In the first place, it is cheaper to get men there, and, in the second place, it is cheaper to get men from there. Hardly a ship sails that does not stop there, and if we have men to put on the ships we hold them until the ships get to Hampton Roads and put them on.

Mr. THOMAS. Would you favor abandoning the Newport station?

Commander WILSON. No, sir; one station could not handle them all.

Mr. BATES. Do you mean to say that with the present size of the Navy and the demand each year for recruits on board ship that Newport can not supply the demand?

Commander WILSON. No, sir.

Mr. BATES. Is it not doing it now?

Commander WILSON. No, sir. We will carry anywhere from 1,500 to 2,000 at Newport, and at this place, where we have no station, we will carry on an average of 1,200 men.

Mr. HOBSON. Commander, in the region of Hampton Roads if you do select a site for the establishment of a first-class training station, what site would you select?

Commander WILSON. There was a board appointed some years ago and they selected a site on York River. It is a question between officers whether you want the location for a training station where the recruits are only going to be for four months near a large town or away from one. Some people say that the men do not have to have leave during the time, four months; others say they should have leave. I think it is not harmful to have it near a city and let them run on Saturdays and Sundays and not tie them up. If the recruit gets his first idea that he is going to be tied, he is not going to stay. The only reason I was impressed with Jamestown was that I thought we were going to get something pretty easy. If you are going to have a training station, I think you could take the same money, and if you start from the beginning, get a better place, much better adapted, but I thought it was impossible to get Congress to do that. I thought this was an opportunity of getting a station started. I went down and looked over the place. It is all well

drained and there are some buildings that could be utilized. The big transportation building and the building opposite to it, I think science and arts, are mere shells. They have brick walls, but they have bad floors. The joists and rafters are all going to pieces and in time the roof would not stand very long. Some of the buildings could be well utilized and we could gradually build up the station.

Mr. BATES. It is a good site?

Commander WILSON. Yes, sir.

Mr. BATES. What amount would be required for maintenance?

Commander WILSON. I think we get along with an appropriation at Newport of \$80,000 and at San Francisco something like \$70,000. That is to buy coal, water, and light supplies, and make repairs to the buildings, etc., and I think if you would allow us \$100,000 we could maintain it.

Mr. MAYNARD. Commander Wilson, the buildings you spoke of that you said would not last forever, but were more of a temporary nature, for a long time in rough weather they could be used for drill halls?

Commander WILSON. Yes, sir. It is my idea that the transportation building would be a very good drill hall and the building opposite a good mess hall. The building you call the auditorium at the head of Raleigh square, the administration building, and the Government building which they now use could be used for quarters. In fact, we could always utilize the buildings.

Mr. MAYNARD. At St. Helena they have very good water?

Commander WILSON. Yes, sir.

Mr. MAYNARD. But is there not a lack of sanitation and sewerage?

Commander WILSON. The great disadvantage would be that you confine men under training with men for general service. It is a bad thing to have the general service and training at the same place.

Mr. HOBSON. Assuming that the Government would undertake the establishment of an adequate first-class training station in the region of Hampton Roads, taking into account not only the immediate needs but the ultimate needs, as a business proposition would you recommend the purchase of this property with the idea of its present utilization and development or would you recommend the purchase of some other site and the establishment of a station?

Commander WILSON. If you are going to start the construction of a first-class training station I really think from looking over the buildings and knowing that the buildings are only temporary buildings that about all you get at the Jamestown Exposition would be the land for a permanent first-class station on the same plan that you are building the station at Chicago.

Mr. THOMAS. Or at Newport?

Commander WILSON. Yes, sir.

Mr. THOMAS. Do you know how much money has been spent up there?

Commander WILSON. It surprised me; it is much smaller than is going to be spent at North Chicago.

Mr. THOMAS. How much would it take to put this place in first-class condition—that is, to make it a first-class training station?

Commander WILSON. Just about as much as it would at Chicago. In fact, they got the land free there.

Mr. THOMAS. How much would that amount to?

Commander WILSON. \$2,500,000, I think.

Mr. MAYNARD. You are taking into consideration that all the sewerage is in and the water is in?

Commander WILSON. Yes, sir.

Mr. BATES. You do not need a breakwater here?

Commander WILSON. No, sir; I do not know that it is necessary to have one there.

Mr. MAYNARD. Have you taken into consideration that you have a Government pier here with a large inclosed basin for use in rough weather?

Commander WILSON. Yes, sir.

Mr. HOBSON. In your judgment, would the immediate use that could be made of these buildings, taking account of their nature, warrant their purchase?

Commander WILSON. Yes, sir. I just feel like the Secretary. If you want to give us something we are ready to take it and will be glad to get it. I am not in a position to say anything about that, but I know from the point of view of the training station that if you want to give us that place we will be delighted to get it, but if you ask me and candidly say: "We want to give you a first-class training station; what will you take, the Jamestown Exposition?" I would say, "No, sir; I will take the land, but give us a station like at North Chicago."

Mr. GREGG. How long could this property be used before we would have to begin putting up new buildings?

Commander WILSON. If you say that you are going to purchase this place, and give it to us, we will get along and only come back for the necessary needs, the \$100,000 for maintenance. If you do not want to give us anything we will all be satisfied.

Mr. GREGG. But you could enlarge it and use it at the same time?

Commander WILSON. Yes, sir. We are in a position to receive and do not come down and ask for anything, as I understand, at the Department. That is what Admiral Brownson told you gentlemen when you came in to see him, did he not?

Mr. MARTIN. I understood him to say that he advocated it.

Commander WILSON. He would advocate it if anybody asked him whether it would be a good thing, but he told you that you would have to initiate the movement.

Mr. MARTIN. Yes, sir.

Mr. WOOL. The auditorium and educational buildings are solid brick structures and could be worked into a part of the plan for future permanent development?

Commander WILSON. Yes, sir.

Mr. WOOL. And the history building is a concrete building.

Commander WILSON. They asked me in connection with North Chicago, where they are building a most magnificent station, and I think we might as well keep up the standard.

Mr. MAYNARD. Of the \$2,500,000, they had to supply the sewerage, water mains, walks, etc.?

Commander WILSON. That is not costing much, because the people are very anxious to get the station and will do almost anything. The railroads are putting in the sidings.

Mr. WOOL. In conversation with the Assistant Secretary of the Navy some time ago, I asked him how much of this land they felt

they could use, and I would like to have him state to the committee just what he said to me then.

Mr. NEWBERRY. For the proper development of a training station, as it can be foreseen in that locality, we could get along very well without all this land, using the land which runs down to the middle of this creek [indicating on plat]. If we had the buildings and the land running up this creek here [indicating on plat], that would be all we can see now the training station could use. The other buildings would not be required for any need that we could think of now.

Mr. OLCOTT. Does that land touch the Elizabeth River?

Mr. WOOL. No, sir.

Mr. OLCOTT. How far is the western line of this property from the Elizabeth River?

Mr. WOOL. Elizabeth River comes into Hampton Roads right opposite to what is called Sewells Point. Hampton Roads is formed by the confluence of the James and Elizabeth rivers. The James River comes right in here [indicating on plat], and the Elizabeth River comes in here [indicating on plat].

Mr. MARTIN. The Tidewater Railroad on the adjoining property is spending \$10,000,000 for a coaling station now.

Mr. WOOL. I would like to ask the Assistant Secretary if Wiltoughby Bay [indicating on plat] would not be an excellent place for the training of boys in bad weather in rowing and sailing?

Mr. NEWBERRY. It would be a good place. There is no deep water there, but there is enough for small boats.

Mr. WOOL. Hampton Roads has enough water for all purposes?

Mr. NEWBERRY. Yes, sir; it is a splendid place.

Mr. MAYNARD. Commander Wilson, I would like to ask you if you have heard that the cavalry and infantry were stationed here last year practically all summer, and that they had an unexampled record for health—less sickness than any summer camp that they have had for a long time?

Commander WILSON. I heard from a sanitary point of view that it was very good. We had some men and electricians there and I have heard that they said whenever they had a hard rain the grounds drained well and that the next day they were dry. The officers on the *Franklin* and everyone say it is good from a sanitary point of view.

Mr. GREGG. You said that you could use this money to better advantage in another way. Have you any particular thing in view where you would rather use this much money than establishing a training station?

Mr. NEWBERRY. I would buy a dry dock in San Francisco.

Mr. GREGG. We are providing one now.

Mr. NEWBERRY. There is one being built at Mare Island. If I had the money, I believe I could use it to better advantage.

Mr. GREGG. By buying a dry dock at San Francisco?

Mr. NEWBERRY. Yes, sir.

Mr. GREGG. What would it cost?

Mr. NEWBERRY. I do not know what the owners want. There is one there which we will probably have to rent.

Mr. HOBSON. What other purposes would you put the money to?

Mr. NEWBERRY. In the first place, I should use it to buy some colliers. I think that is the first thing I would do with it. I certainly would not acquire real estate. I believe that the Navy should be afloat more than ashore.

Mr. THOMAS. I understand that this property is offered to us for \$2,000,000?

Mr. NEWBERRY. I have no knowledge of the money matters involved.

Mr. THOMAS. Has the price been given us?

Mr. MAYNARD. I introduced a bill with an idea of having the matter taken up.

Mr. NEWBERRY. So far as the Department is concerned, it has no recommendations to make to Congress if this is an appropriation to be in any way charged up to the needs of the Navy. If Congress in its wisdom decides to buy the property for financial or other reasons, the Navy can use it, but it can not recommend the purchase as necessary for the efficiency of the Navy, because I do not think it is.

Mr. THOMAS. What is the price named?

Mr. WOOL. The Exposition Company owes the Government \$890,000, the balance of \$1,000,000 that was lent to the Exposition Company. The idea would be that in acquiring this portion of the property suggested by the Secretary, all the water front and about 200 acres of land and about \$1,200,000 put upon the land by the Exposition Company, the Government would also save about \$800,000 that it has expended itself in improvements.

Mr. HOBSON. You refer to the pier?

Mr. WOOL. Yes, sir. Four hundred thousand dollars for the pier, \$350,000 for the buildings, which could be utilized, and about \$65,000 in dredging the channel from Hampton Roads into this property. The total of this amount would be about \$3,000,000, but it would only require an appropriation of about \$1,250,000 to get advantage of the whole \$800,000 spent by the Government, to get advantage of the \$1,200,000 spent by the Exposition Company, and about \$250,000 spent by the various States for State buildings and also acquire 200 acres of land and a large water front, which, as I explained at the hearings before, would increase the acreage in case it was ever necessary by filling in in front of the property acquired.

Mr. HOBSON. What amount, if any, of this money would be required in cash to be appropriated by the present session of Congress?

Mr. WOOL. I think if the present Congress would appropriate \$100,000 or \$250,000—I think it would be better to appropriate \$250,000 so as to acquire all the State buildings—

Mr. THOMAS. This does not take in the entire grounds?

Mr. WOOL. No, sir; two-thirds of the grounds.

Mr. THOMAS. What would be done with the balance?

Mr. WOOL. It would be sold by the receivers for what it would bring.

Mr. HOBSON. What additional cost would be involved by taking in the additional one-third?

Mr. WOOL. I suppose \$250,000.

Mr. HOBSON. Is it already in the property or would it have to be acquired?

Mr. WOOL. No; it is in the property.

Mr. HOBSON. What is the object of your wishing to withhold one-third of the property?

Mr. WOOL. I do not wish to withhhhold it. The Assistant Secretary of the Navy seems to be under the impression that it would be well to own the property from this point [indicating on plat], Commonwealth avenue, west and this point [indicating on plat], Commonwealth avenue, east, to Bush Creek, which contains a body of about 200 or 220 acres. He suggested that they could very well utilize that property over to the creek, and, consequently not desiring to ask Congress to purchase more than the Assistant Secretary seemed to think could be utilized, I simply suggested that.

Mr. HOBSON. I understand the total value you are estimating would run into \$3,000,000?

Mr. WOOL. Yes, sir.

Mr. HOBSON. With one-third of it cut out you would only have about 200 acres?

Mr. WOOL. I only regard the 200 acres of land at \$500,000. That was the estimate made at the last hearing. This is the land which contains most all the improvements. The exposition company expended very little money in improvements on this western 100 acres, as you can see by this plan.

Mr. BATES. The land you offer the Government is what, after consulting the Navy Department, would be enough ground to provide an eligible site for this station, and you did not offer it all because they did not seem to need it all, and you will sell the rest to private parties and recoup yourselves in that way?

Mr. WOOL. You understand that this company is in the hands of receivers and the expenses of litigation are very heavy.

Mr. MARTIN. It is entirely agreeable to the receivers for the Government to acquire it all.

Mr. HOBSON. Would that make a substantial difference?

Mr. MARTIN. I think about \$250,000.

Mr. MAYNARD. That would make the price which the Government would pay about \$1,500,000.

Mr. HOBSON. You suggested a present appropriation of \$250,000; to what specifically would that be applied?

Mr. WOOL. My idea was that the Secretary of the Navy, if authorized to enter into a contract for the purchase of this property, would first want to secure all the State buildings on this site and that money would be available at once to buy those State buildings and the rest could be paid as a partial payment on the land bought from the exposition company or the receivers.

Mr. HOBSON. In your first suggestion of \$100,000 what had you in view?

Mr. WOOL. The same thing, to get the State buildings.

Mr. HOBSON. Could you secure the title to the State buildings on that basis?

Mr. WOOL. I think so. If I may illustrate it, you take the State of Connecticut and they paid \$26,000 for their building. It is a beautiful building and was regarded by the board of architects who visited the exposition with a view to passing on the architectural beauties as a model structure. I presume that building could be

bought from the State for \$10,000. The New Jersey building cost a similar amount, the New York building a similar amount, and the Massachusetts building a similar amount. Now, if the aggregate cost of the buildings not owned by the Government and exposition company within the area proposed were estimated it would run to probably \$250,000, but I believe if the Secretary of the Treasury was authorized to purchase those buildings he could do it for \$100,000. To make the thing sure it would seem to me, if Congress really intends to buy them, that you should make the present appropriation a little larger than that and allow the balance to be credited on the payment.

Mr. HOBSON. In the event of its being required that titles complete should be surrendered to the Government, I understand that this first \$100,000 payment would enable the Government, without additional expense, to secure title to the State buildings?

Mr. WOOL. Yes, sir.

Mr. BATES. The subcommittee will now proceed to the consideration of executive business.

The subcommittee proceeded to the consideration of executive business, after which it adjourned.

[No. 95.]

Navy Department,
Washington, March 16, 1908.

TO CORRECT THE NAVAL RECORD OF LIEUT. HILARY WILLIAMS, U. S. NAVY—DEPARTMENT LETTER.

SIR: In reference to H. R. 10416, to correct the naval record of Lieut. Hilary Williams, U. S. Navy, it has been brought to the attention of the Department that this bill, as reported from the committee, has been amended so as to reduce the loss of numbers suffered by Lieutenant Williams from 47 to 19. The original bill restored him to his original place on the list.

In the belief that the recommendation of the Department on this bill contained in its letter of February 1, 1908, may have been misinterpreted, I feel that it is no more than due the young man that the Department should again invite your attention to the recommendation above referred to, which was as follows:

While the Department believes that there should be a penalty imposed upon officers who fail in their examinations for promotion, it believes that, under conditions as they exist at present, where between 40 and 50 officers are promoted annually to the grade of lieutenant, the provisions of section 1505, Revised Statutes, when carried out, inflict a penalty upon an officer far greater than was intended when this law was passed (July 15, 1870), when promotions were much slower.

The Department believes that a loss of, say, ten numbers, in the line and a corresponding proportionate number in the staff corps would be more just.

The Department recommends favorable action upon this bill.

The intention of the Department was to recommend the bill as it stood to the favorable consideration of the committee, but that it considered it very desirable that the law as it now stands be changed so that an officer who fails to pass an examination for promotion would lose ten numbers rather than a year's suspension.

Other officers who failed at about the same time that Lieutenant Williams did were given a second examination and thus did not lose numbers, and it is to put Lieutenant Williams on the same footing as these other officers that the Department favors this bill.

Very respectfully,

V. H. METCALF,
Secretary.

Hon. GEORGE E. FOSS,
*Chairman of the House Naval Committee,
House of Representatives.*

[No. 96.]

DEPARTMENTAL VIEWS BY THE JUDGE-ADVOCATE OF THE NAVY ON H. R. 6252, A BILL TO PROMOTE THE ADMINISTRATION OF JUSTICE IN THE NAVY.

SUBCOMMITTEE OF THE COMMITTEE ON NAVAL AFFAIRS.

MONDAY, MARCH 16, 1908.

The subcommittee this day met, Hon. Ernest W. Roberts in the chair.

Mr. ROBERTS. The Judge-Advocate of the Navy has appeared before the committee this morning, at my request, to give us the departmental views on the bill H. R. 6252, being a bill to promote the administration of justice in the Navy.

Will you kindly take up that bill seriatim and give us such information as you have as to the necessity for the legislation?

STATEMENT OF CAPT. EDWARD H. CAMPBELL, JUDGE-ADVOCATE-GENERAL, U. S. NAVY.

Captain CAMPBELL. The first seven sections of this bill create a new style of court, which is called the "deck court." The idea is to cut down the number of officers who are required at present to try minor offenses in the Navy. At present the summary court which tries these offenses consists of four officers, three as members and one as the recorder, and the taking of these officers from their duties on board ship handicaps the drills, and the result can be accomplished as effectually and much quicker if the number is cut down to one officer. In the Army they have a similar court composed of one officer in which all these minor offenses are tried.

The first section of the bill creates the court and is very similar to the present law creating the summary court with three officers, and simply authorizes the ordering of the court by certain officers now authorized to order a summary court.

Section 2 gives the name of the court which shall consist of one officer only and gives him authority to administer oaths and hear cases and impose punishments, practically the same as now authorized by summary courts, but with the exception that he shall not adjudge discharge from the service, a bad conduct discharge, or adjudge confinement or forfeiture of pay for a longer period than thirty days.

Mr. ROBERTS. Will you kindly submit to the committee the sentences that the summary court can inflict?

Captain CAMPBELL. Yes, sir; I have a statement covering that here.

The statement referred to is as follows:

Punishments for minor offenses in the Navy.

Now authorized for summary courts (composed of 3 officers and recorder).	Proposed for deck courts (composed of 1 officer).	Now authorized for commanding officers.
Bad conduct, discharge.	None.	None.
Solitary confinement in irons, single or double, on bread and water, not exceeding 30 days.	Same.	Solitary confinement on bread and water, not exceeding 6 days.
Solitary confinement in irons, single or double, not exceeding 30 days.	Same.	
Solitary confinement, not exceeding 30 days.	Same.	Solitary confinement, not exceeding 7 days.
Confinement, not exceeding 2 months.	Confinement, not exceeding 30 days.	Confinement, with or without irons, single or double, not exceeding 10 days, unless longer confinement necessary in case to be tried by court-martial.
Reduction to next inferior rating.	Same.	Reduction of any rating established by himself.
Deprivation of liberty on shore on foreign station.	Same.	Deprivation of liberty on shore.
Extra police duties, and loss of pay not to exceed 3 months, may be added to any of the above.	Same, but loss of pay not to exceed 30 days.	Extra duties.

Mr. PADGETT. Section 4 says:

That the officer within whose command a deck court is sitting shall have full power as reviewing authority to remit or mitigate, but not to commute, any sentence imposed by such court.

What is the distinction as understood by the authorities between "mitigate" and "commute?"

Captain CAMPBELL. In mitigating a sentence he can cut a sentence down, if he thinks it is too severe. If the loss of pay is one month, he can cut it down to ten days or fifteen days. To commute a sentence would be to change a sentence to a different character.

Mr. PADGETT. Ordinarily in State administration a commutation of sentence is a reduction of punishment. For instance, if a man is sentenced to the penitentiary for ten years the governor can commute it to five years. I did not gather the distinction which you had in mind between the words "mitigate, but not to commute." You use the word "commute" as meaning substituting a different punishment?

Captain CAMPBELL. Yes, sir. He could reduce the punishment, but not substitute anything else.

Mr. PADGETT. Section 8, in connection with the statement you handed to the chairman just a moment ago, reads "the courts authorized to impose the punishments prescribed by article 30 of the Articles for the Government of the Navy may adjudge either a part or the whole, as may be appropriate, of any one of the punishments therein enumerated." In reading article 30, which is what you handed the clerk a moment ago, it says that the court in enumerating punishments may prescribe a punishment not exceeding thirty days or may prescribe a punishment and penalty not exceeding the loss of pay for so many days, or may prescribe a punishment at solitary confinement, not exceeding thirty days, etc. What do you mean by the court

may adjudge any part or the whole of any one of the punishments therein enumerated?

Captain CAMPBELL. One of the punishments allowed under article 30, No. 2, is, "solitary confinement, not exceeding thirty days, in irons, single or double, on bread and water, or on diminished rations," and if the court should want to leave out "on bread and water" or "in irons, single or double" it could not be done, or if the court wanted to put him in confinement without irons it could not authorize that punishment. They have to give the whole thing as worded there. The way it is now they have to follow the seven different punishments allowed and they have to follow the wording of the law.

Mr. PADGETT. Section 6 says:

That the records of the proceedings of the courts hereby authorized shall contain such matters only as are necessary to enable the reviewing authorities to act intelligently thereon.

As I gather that, it does not address itself very favorably to me, because the court would be the judge of what he thought was appropriate to go in, and he might leave out or insert as it suited his convenience. Why should not the whole record go up?

Captain CAMPBELL. The custom in the summary courts now is that all testimony that is taken before the court is copied and goes in the record the same as in general courts, and the idea is to do away with that, considering that the officer who forms the court is an impartial judge and that his finding is correct. This is the form followed by the Army in similar courts.

Mr. PADGETT. The question addresses itself to me, assuming that he was not an impartial court, if he could not just put into the record what he wanted and leave out of the record what he wanted, so the reviewing court would not have a full transcript of the record before him.

Captain CAMPBELL. This bill provides that in any case where a man does not want to be tried before this court he can be tried before a summary court.

Mr. OLCOTT. But he would have to do that in the beginning.

Mr. PADGETT. After he once elects to go before the court, then the court, under section 6, is the judge of what he will put into the record to go before the reviewing authority.

Mr. ROBERTS. Could not that objection be cured by inserting a provision that the officer shall preserve a complete record for a given number of months, and that complete record, on the request of the man court-martialed, should be forwarded to the Department?

Mr. PADGETT. That would cure it.

Mr. ROBERTS. So in case a man thought the judge of this one-man court had been unfair to him he could then have a way of showing it to the reviewing authority.

Captain CAMPBELL. In the Army this same form of court has been in vogue for a number of years and there has never, to my knowledge, been any trouble of that kind.

Mr. ROBERTS. No complaint that the judge was biased?

Captain CAMPBELL. No, sir. The record could be made as complete as you considered necessary.

Mr. OLCOTT. I would suggest inserting after the word "thereon," in line 19, "except that if the party accused demands it within thirty

days after the decision of the court-martial the entire record, or so much as he desires, shall be sent to the reviewing authority."

Mr. ROBERTS. That would not defeat the end you have in mind and yet it would protect the rights of the man?

Captain CAMPBELL. Yes, sir; the rights of the man should be protected.

Mr. ROBERTS. I understand that one of the purposes of this single-man court is to simplify the process?

Captain CAMPBELL. Yes, sir.

Mr. ROBERTS. And do away, I think you said, with four officers who now have to hold the petty courts?

Captain CAMPBELL. Yes, sir.

Mr. ROBERTS. One of whom makes up the record?

Captain CAMPBELL. Yes, sir.

Mr. ROBERTS. What provision have you for making up a record under this one-man court?

Captain CAMPBELL. Section 3 provides:

That any person in the Navy under the command of the officer by whose order a deck court is convened may be detailed to act as recorder thereof.

Mr. ROBERTS. Just what do you contemplate there? At present, what class of officer is detailed?

Captain CAMPBELL. The present law provides that the captain shall designate an officer under his command.

Mr. ROBERTS. This allows any man?

Captain CAMPBELL. Yes, sir.

Mr. ROBERTS. So a yeoman could be designated to act as recorder and not interfere with the government of the ship?

Captain CAMPBELL. Yes, sir.

Mr. ELLIS. An ordinary seaman might act?

Captain CAMPBELL. Yes, sir; any man who is competent to act as recorder. The objection to the present practice is that it takes another officer away from the drills and duties on the ship. He is only there in a clerical capacity; he has no vote or anything like that.

Mr. DAWSON. Would there be any objection to putting into this bill a provision abolishing the use of irons in the United States Navy?

Captain CAMPBELL. I think in some cases it is desirable to use irons on board ship. There are some men who are refractory; they come on the ship drunk and begin to create a disturbance and the only way to prevent them from roaming about the ship is to put them in irons if the ship prison is full.

Mr. DAWSON. There is a general impression prevailing that the use of irons in punishing these boys in the Navy is much more prevalent than there is any necessity for. There is a bill pending before this committee now, of which this is a copy [exhibiting], and I would like to have you look it over.

Captain CAMPBELL. I do not think that would help the administration of discipline on ship. I do not think the irons are used on ship except when necessary. That has been my experience.

Mr. DAWSON. One or two cases have come to my attention where men have been sentenced to be confined in irons where they were in bed in the hospital with irons on them.

Mr. ROBERTS. If a man is found guilty and given any punishment whatever the irons are a part of this punishment, and this particular

section is desired to obviate that and let the court give the punishment with or without irons?

Captain CAMPBELL. The captain of a ship can remit the irons, but the purpose of this bill is to authorize the court itself to leave out that punishment.

Mr. DAWSON. Have you any data to show the extent of punishment in the Navy in which irons are used?

Captain CAMPBELL. No, sir; it would be very difficult to furnish that information. A great many of the summary courts give loss of pay as seeming to be the most effective punishment and many only give confinement with or without irons. I should say that probably half of them have irons, but in many cases that is remitted by the captain.

Mr. DAWSON. Is this provision relating to irons practically as old as the Navy itself?

Captain CAMPBELL. Yes, sir.

Mr. DAWSON. Is it not true that the character of the enlisted men now in the Navy is of a much higher standard than years ago?

Captain CAMPBELL. Yes, sir; much higher.

Mr. DAWSON. And is it not true, in a greater or less degree, that this question of irons is merely a relic of the past ages?

Captain CAMPBELL. I do not think so. I think the use of irons on board ship in a great many cases is necessary, especially in the cases of men who come aboard ship drunk and refractory and are inclined to create disturbance.

Mr. DAWSON. That may be true aboard ship, but what about irons for men on prison ships?

Captain CAMPBELL. They are not put in irons except as a special punishment.

Mr. DAWSON. It seems to me that I have seen around the navy-yards men undergoing punishment in irons?

Captain CAMPBELL. It was probably a special punishment. The men sentenced by general courts-martial either to prison or the prison ship at Portsmouth are not put in irons unless they commit offenses in prison or on ship.

Mr. ROBERTS. It is an additional punishment for something they have done after being imprisoned?

Captain CAMPBELL. Yes, sir.

Mr. DAWSON. On prison ships the irons are only used as a prison punishment for some violation they have committed after they have been put there?

Captain CAMPBELL. Yes, sir. The sentence by which they are sent to the prison ship does not include irons. I do not know of a case where the sentence has included irons.

Mr. TALBOTT. They can be put in irons as a further punishment?

Captain CAMPBELL. Yes, sir; by the captain of the ship.

Mr. PADGETT. Who determines the use of irons after they reach the ship?

Captain CAMPBELL. The captain of the ship.

Mr. DAWSON. Those classes of infractions in which irons are prescribed, are they in the nature of misdemeanors or simply infractions of the regulations?

Captain CAMPBELL. Usually misdemeanors. The captain of the ship is authorized to prescribe certain punishments, deprivation of

liberty, and confinement, with or without irons. For an ordinary case he usually gives confinement or restricts their liberty, which is not to allow them to go ashore for a certain time.

Mr. DAWSON. I would like to know whether the nature of the offense for which irons are prescribed is simply an infraction of the regulations or whether it is in the nature of a misdemeanor, both after they reach the prison ship and before that?

Captain CAMPBELL. They are put in irons on board ship for the more serious infractions of the regulations.

Mr. TALBOTT. Do you take anything off the sentence for good behavior?

Captain CAMPBELL. Yes, sir.

Mr. PADGETT. Are irons inflicted either on board ship or in the service for violations of the rules or regulations that do not involve moral turpitude?

Captain CAMPBELL. Not usually. When a commanding officer adjudges irons to a man it depends on his nature. Usually irons are not given except in cases involving moral turpitude. Most of them are infractions of the ship's regulations.

Mr. PADGETT. Are there cases where men are put in irons for violation of trivial rules, less important rules, which do not involve moral turpitude?

Captain CAMPBELL. No, sir; I do not think so.

Mr. PADGETT. For instance, a man is guilty of larceny on board ship and might be put in irons; but suppose he was playing a social game of cards in violation of a regulation, would he be put into irons for the latter offense?

Captain CAMPBELL. I do not think a man playing a social game of cards would be put in irons. If he was gambling and if the money was in sight, anything of that sort, he would probably be court-martialed.

Mr. OLCOTT. Suppose he was gambling and the money was in sight?

Captain CAMPBELL. He would probably be tried by a court-martial and be put in irons.

Mr. OLCOTT. He would have to be put in irons under article 30?

Captain CAMPBELL. Under No. 2 he would have to be put in irons. No. 2 is "Solitary confinement, not exceeding thirty days, in irons, single or double, on bread and water, or on diminished rations."

Mr. OLCOTT. And if this bill becomes law that will obviate it?

Captain CAMPBELL. Yes, sir.

Mr. DAWSON. Can not adequate and suitable punishment be inflicted without the use of irons?

Captain CAMPBELL. The commanding officer can remit the irons under the present system of summary courts, if he considers it advisable to do so. No man is put in confinement over ten days on bread and water until the doctor examines him and certifies that the confinement will not be injurious to him.

Mr. ROBERTS. But that remission of the irons by the captain could be obviated if the court inflicting the sentence did not put it in?

Captain CAMPBELL. Yes, sir.

Mr. ROBERTS. Section 9 reads:

That the Secretary of the Navy may set aside the proceedings or remit or mitigate, in whole or in part, the sentence imposed by any naval court-martial convened by his order or by that of any officer of the Navy or Marine Corps.

Mr. PADGETT. In what way does that change existing law?

Captain CAMPBELL. The Secretary now does remit or mitigate, but there is no specific provision of law which authorizes it, and we think it is advisable to have this specific provision of law covering that point.

Mr. ROBERTS. Section 10 reads:

That general courts-martial may be convened by the President, by the Secretary of the Navy, by the commander in chief of a fleet or squadron, and by the commanding officer of any naval station beyond the continental limits of the United States.

Mr. PADGETT. In what way does that section change existing law?

Captain CAMPBELL. By the addition of the two last lines, "and by the commanding officer of any naval station beyond the continental limits of the United States." As the law now stands, only the President, the Secretary of the Navy, and the commander in chief of a fleet or squadron may order a general court. For instance, when the *Adams* left Guam last June there were a couple of sailors ashore who purposely did not catch the ship. They were recommended by the governor of Guam for a general court-martial, and his recommendation had to come to Washington and be approved by the Secretary of the Navy and then go back there and have the court ordered. The men were tried in Guam, the record came to Washington, was approved, and then went back to Guam before anything could be done. That took six months, and the sentence was only four months' imprisonment, and the only thing to do was to remit the imprisonment.

Mr. ROBERTS. The men were in confinement during the six months?

Captain CAMPBELL. They were either in confinement or prisoners at large.

Mr. ROBERTS. They were under restraint for six months. In other words, they were punished six months and given a four-months' sentence which had run out really before sentence?

Captain CAMPBELL. Yes, sir.

Mr. ROBERTS. This bill will give the courts ordered by the commanding officer of any naval station beyond the limits of continental United States the same character as though ordered by the Secretary of the Navy in the first instance?

Captain CAMPBELL. Yes, sir.

Mr. ROBERTS. And stop all the appeals and everything of that sort?

Captain CAMPBELL. No, sir. As to the courts ordered by the commander in chief of a fleet he is the reviewing officer, except in cases of dismissal or death, and in those cases they come here for approval by the President.

Mr. PADGETT. There would be no appeal to the Secretary of the Navy?

Captain CAMPBELL. Yes, sir. They all come to the Secretary of the Navy for final revision, and in case he wants to remit any sentence of course it is within his power to do so.

Mr. ROBERTS. Just as the Secretary and the commander in chief of a fleet or squadron?

Captain CAMPBELL. Yes, sir.

Mr. ROBERTS. All these court-martials will ultimately come to the Secretary of the Navy?

Captain CAMPBELL. Yes, sir.

Mr. PADGETT. Supposing the Secretary of the Navy, under existing law and under section 10 should it become a law, should convene a court-martial and the defendant should be convicted and sentenced, and then the commanding officer of a naval station beyond the continental limits of the United States should convene a court-martial and the defendant should be convicted and sentenced, what would be the difference in the procedure from that point on after the conviction of each, supposing that section 10 becomes law?

Captain CAMPBELL. For offenses committed in outlying stations?

Mr. PADGETT. Yes, sir; for either one. Suppose that two offenses identical in character have been committed by two individuals; the Secretary of the Navy convenes a court-martial in one instance and the defendant is convicted and sentenced. In the other instance the commanding officer of a naval station beyond the continental limits of the United States convenes a court-martial and the defendant is convicted and sentenced. From that point on what would be the difference, if any, of procedure in those two cases?

Captain CAMPBELL. In the case of the court ordered by the Secretary of the Navy the record would be simply forwarded by the commandant for final action by the Secretary, and after his action it would have to go back to Guam for the punishment to be carried out. In the case of the court ordered to be called by the governor of Guam he would immediately approve the sentence and the sentence would be carried out, provided it did not call for the dismissal or death of an officer. In those cases, as provided by law, they would have to come to the President.

Mr. PADGETT. Would that apply to an enlisted man also?

Captain CAMPBELL. Yes, sir. The dishonorable discharge of a seaman could be carried out at once.

Mr. ELLIS. But they could not impose the death penalty?

Captain CAMPBELL. No, sir.

Mr. PADGETT. The seaman could be dismissed before the case got to the Secretary of the Navy?

Captain CAMPBELL. Yes, sir.

Mr. OLCOTT. He could be reinstated by the Secretary of the Navy?

Captain CAMPBELL. Yes, sir.

Mr. ROBERTS. If the Secretary did not approve of the proceedings of the court called by the governor?

Captain CAMPBELL. Yes, sir; he could reinstate the man. That is the way it is now with the courts ordered by the commanders in chief; the records are all sent to the Secretary for file in the office of the Judge-Advocate-General.

Mr. PADGETT. At the present time under existing law there is no authority for convening a court-martial by order of the commanding officer of a naval station beyond the continental limits of the United States?

Captain CAMPBELL. No, sir.

Mr. PADGETT. He is given that authority by section 10 of this act?

Captain CAMPBELL. Yes, sir.

Mr. PADGETT. What is it that differentiates the power and the procedure of a court-martial convened by the commanding officer of a naval station beyond the continental limits of the United States from one convened by the Secretary of the Navy as covered by section 10 of this act?

Captain CAMPBELL. I do not believe that I catch the point of your question.

Mr. PADGETT. Section 10 reads:

That general courts-martial may be convened by the President, by the Secretary of the Navy, by the commander in chief of a fleet or squadron, and by the commanding officer of any naval station beyond the continental limits of the United States.

Mr. ROBERTS. Under existing law those you have named are the only persons who can convene a court-martial beyond the continental limits, and this language, "and by the commanding officer of any naval station beyond the continental limits of the United States," puts in another person who can convene the court.

Captain CAMPBELL. Article 38, Articles for the Government of the Navy, reads:

General courts-martial may be convened by the President, the Secretary of the Navy, or the commander in chief of a fleet or squadron; but no commander of a fleet or squadron in the waters of the United States shall convene such court without express authority from the President.

Mr. PADGETT. Section 10, as I understand, authorizes the President of the United States, by reaffirming existing law, the Secretary of the Navy, by reaffirming existing law, and the commander in chief of a fleet or squadron, by reaffirming existing law, to call a court-martial beyond the continental limits of the United States?

Captain CAMPBELL. Yes, sir.

Mr. PADGETT. It adds to those the power of the commanding officer of a naval station to do the same thing?

Captain CAMPBELL. Yes, sir.

Mr. PADGETT. Why would not the procedure in all five of the cases be the same under this section? What would differentiate the procedure of the court-martial ordered by the commanding officer of a naval station from that ordered by the Secretary of the Navy?

Captain CAMPBELL. The procedure of the court would be the same.

Mr. ELLIS. It would have the same powers as the other courts have?

Captain CAMPBELL. Yes, sir.

Mr. PADGETT. After he has exercised the power and sentenced the defendant, then why is there a different procedure?

Mr. ROBERTS. The object is this: The court called by the Secretary has the papers forwarded directly to him and he is the reviewing officer. The court called by the commanding officer of a naval station makes him the final reviewing authority and the papers are simply sent to Washington to be filed.

Mr. PADGETT. What gives the commander at Guam the authority to review the final decisions of a court-martial called by the commander?

Captain CAMPBELL. There is another provision of law.

Mr. PADGETT. Where is there any law that says that a court-martial called by the commanding officer of a naval station beyond the limits of the United States shall be under this law?

Captain CAMPBELL. Article 54, Articles for the Government of the Navy, says:

Every officer who is authorized to convene a general court-martial shall have power, on revision of its proceedings, to remit or mitigate, but not to commute, the sentence of any such court, which he is authorized to approve and confirm.

Mr. PADGETT. That says "every officer?"

Captain CAMPBELL. Yes, sir.

Mr. PADGETT. Why would not that apply to the commanding officer of a naval station beyond the limits of continental United States?

Captain CAMPBELL. It does.

Mr. PADGETT. The Secretary of the Navy is under that provision?

Captain CAMPBELL. Yes, sir.

Mr. PADGETT. And all the others?

Captain CAMPBELL. Yes, sir; any officer who orders a court becomes in that way the reviewing officer.

Mr. OLCOTT. Section 11 authorizes the compelling of all witnesses to appear, and section 12 provides for the punishment of a witness who does not appear. Do they change existing law at all?

Captain CAMPBELL. There is a law providing for that in the Army, but there is no law which covers that in the Navy.

Mr. OLCOTT. You can not compel witnesses to appear?

Captain CAMPBELL. No, sir; we can not compel civilian witnesses to appear. Of course we can compel witnesses in the Navy to appear. When we want civilian witnesses to appear, they come if they want to, and if they do not, they do not come.

Mr. OLCOTT. This simply follows the law as it now exists in the articles for the government of the Army?

Captain CAMPBELL. Yes, sir.

Mr. PADGETT. Section 13 provides that depositions of witnesses may be taken, naming certain instances and emergencies. That seems to carry with it the right of the Government to take the depositions of witnesses as well as the defendant, does it not?

Captain CAMPBELL. Yes, sir.

Mr. PADGETT. How about the constitutional provision that the defendant shall have the right to meet the witnesses face to face?

Mr. ROBERTS. When a seaman or officer is under court-martial the judge-advocate must use all diligence to secure the presence of such witnesses as that seaman or officer desires?

Captain CAMPBELL. Yes, sir.

Mr. ROBERTS. A man commits some offense aboard ship, and an officer, we will say, who would be a witness at the court-martial has been ordered to the Philippines and has gone there. It would be practically out of the question to have that officer called back from the Philippines to testify before the court-martial and this provision is made to secure his testimony by deposition. Suppose the deposition is material for the conviction of the man, the Navy Department and the judge-advocate would want the deposition. Suppose the testimony is favorable to the man, under this provision would the Navy Department be compelled to secure the deposition of that man?

Captain CAMPBELL. Yes, sir.

Mr. PADGETT. The constitution of the United States and of the different States provides that in all criminal cases the defendant shall have the right to meet the witness face to face and to cross-examine him. Under that provision the Government has never been given the right to take depositions. Defendants in the State jurisdiction have been given the right to take depositions on the assumption that they can waive their constitutional right to have the witness face to face. It is proposed here to give the Government the right to take the deposition of a witness for the prosecution of the man. Suppose the man insists that the Government bring the witness and

let him face him, and let the court-martial see the man, see his demeanor, see his manner, and his conduct, which is often more than the words he utters, and the Government says: "No, we will take his deposition."

Mr. ROBERTS. Have you heard of any hardship being worked in the Army in the administration of a similar provision?

Captain CAMPBELL. No, sir.

Mr. ROBERTS. Section 14 provides:

That persons confined in prisons in pursuance of the sentence of a naval court-martial shall, during such confinement, be allowed a reasonable sum, not to exceed \$3 per month, for necessary prison expenses, and shall upon discharge be furnished with suitable civilian clothing and paid a gratuity, not to exceed \$25.

Mr. PADGETT. Is there not a similar provision now?

Captain CAMPBELL. There is for the military prisoners. The Comptroller has decided that a certain amount can be given so that the man shall not be turned out of prison without anything. This would not apply in very many cases. It is simply to cover cases where men are discharged from prison without suitable clothing and without any money.

Mr. ROBERTS. Have you anything further that you desire to say to the committee in regard to this bill?

Captain CAMPBELL. I desire to say that this bill if passed will help the administration of justice in the Navy greatly.

Mr. ELLIS. It does not add anything to the punishment already allowed?

Captain CAMPBELL. No, sir.

Mr. ELLIS. It rather mitigates than intensifies?

Captain CAMPBELL. Yes, sir.

Mr. ROBERTS. There is another bill, H. R. 19093, introduced by Mr. Foss, which provides:

That section 1624, article 24, of the Revised Statutes of the United States, be, and the same is hereby, amended by adding thereto the following words: "Where they shall be kept on file for a period of two years from date of trial, after which time they may be destroyed, in the discretion of the Secretary."

Can you give us any light on that bill, and to what does it refer?

Captain CAMPBELL. Article 34, article for the government of the Navy, reads:

The proceedings of summary courts-martial shall be conducted with as much conciseness and precision as may be consistent with the ends of justice, and under such forms and rules as may be prescribed by the Secretary of the Navy, with the approval of the President; and all such proceedings shall be transmitted, in the usual mode, to the Navy Department.

The custom has been to keep all those records all the time. This law was passed in 1855, and while I have not counted them I think it is no exaggeration to say that there are 50,000 records.

Mr. ELLIS. Of what value?

Captain CAMPBELL. No value.

Mr. OLCOTT. You limit the time to two years. Suppose a man ten years after he has been convicted thinks he has been badly treated and wants to have a bill passed through Congress to change his record, ought not we have the record longer than for two years?

Captain CAMPBELL. There is a transcript of the record kept on his enlistment record—the offense, punishment, and dates. Two years

should be enough for him to find out whether he has been abused, I should think.

Mr. PADGETT. Suppose a man is convicted and sentenced for ten years?

Captain CAMPBELL. These are records of the summary courts, not the general courts.

Mr. PADGETT. What is the extent of punishment in the summary courts?

Captain CAMPBELL. Two months' confinement. They can give a bad-conduct discharge, or solitary confinement not exceeding thirty days. There were 6,000 of those cases last year.

Mr. PADGETT. Suppose a man is convicted by court-martial and sentenced for ten years, his record with the evidence, etc., is sent to the Secretary of the Navy and is kept on file two years?

Captain CAMPBELL. The general court records are kept on file forever.

Thereupon, the subcommittee adjourned.

[No. 97.]

PAY OF ENLISTED MEN OF THE NAVY

COMPILATION OF ORDERS FIXING PAY OF ENLISTED
MEN OF THE UNITED STATES NAVY FROM NO-
VEMBER 7, 1883, TO FEBRUARY 7, 1908

INCLUDING EXTRA PAY FOR MEDALS, GUN CAPTAINS,
CERTIFICATES, CERTIFICATES OF GRADUATION FROM
PETTY OFFICERS' SCHOOL OF INSTRUCTION, ETC.

COMMITTEE ON NAVAL AFFAIRS
HOUSE OF REPRESENTATIVES
MARCH, 1908

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2

PAY OF ENLISTED MEN OF THE NAVY.

Section 7 of the act of March 27, 1794, first authorized the President of the United States to fix the pay which should be allowed to petty officers, ordinary seamen, seamen, and marines. An act of July 1, 1797, contains the same authorization. The act of April 18, 1814, provides that the pay and bounty upon enlistment of seamen, ordinary seamen, and marines shall be fixed by the President of the United States. The act of March 3, 1847, provides that the pay of firemen and coal heavers employed in the naval service shall hereafter be fixed by the President in the same manner as is now provided by law for the pay of other petty officers, seamen, ordinary seamen, and marines.

The pay of the enlisted men of the Navy is provided for under section 1569 of the Revised Statutes of the United States, the act being dated April 18, 1814, and is as follows, viz:

SEC. 1569. The pay to be allowed to petty officers, excepting mates, and the pay and bounty upon enlistment of seamen, ordinary seamen, firemen, and coal heavers, in the naval service shall be fixed by the President: *Provided*, That the whole sum be given for the whole pay aforesaid, and for the pay of officers and for the said bounties upon enlistments shall not exceed, for any one year, the amount which may, in such year, be appropriated for such purposes.

The last *general* increase was made by President Arthur November 5, 1883, Navy Department General Order 310, dated November 7, 1883, the increase to take effect January 1, 1884. By this order the following increases were made in the rates in which *first* enlistments occur, and the pay then established for first enlistment has not been increased since that date:

	From—	To—
Landamen	\$15. 50	\$16. 00
Ordinary seamen	17. 50	18. 00
Seamen	21. 50	24. 00
Firemen, first class	31. 50	35. 00
Firemen, second class	25. 50	30. 00
Coal passers	21. 50	22. 00

GENERAL ORDER }
No. 310. }

NOVEMBER 7, 1883.

The following Executive order is published for the information and guidance of all concerned.

EDWARD T. NICHOLS,
Acting Secretary of the Navy.

EXECUTIVE MANSION,
Washington, D. C., November 5, 1883.

* The pay of the petty officers and enlisted men of the United States Navy, on and after the 1st of January, 1884, will be as follows:

Rating.	Monthly pay.	Rating.	Monthly pay.
Seamen gunners.....	\$34.00	Firemen, first class.....	\$35.00
Chief boatswains' mates.....	35.00	Firemen, second class.....	30.00
Boatswains' mates.....	30.00	Coal heavers.....	22.00
Chief gunners' mates.....	35.00	Apothecaries.....	60.00
Gunners' mates.....	30.00	Yeomen, paymasters'.....	60.00
Chief quartermaster.....	35.00	Yeomen, equipment.....	60.00
Quartermasters.....	30.00	Yeomen, engineers'.....	60.00
Cockswains.....	30.00	Master-at-arms.....	65.00
Captains of forecastle.....	30.00	Schoolmasters.....	45.00
Captains of tops.....	30.00	Ship's writers.....	45.00
Captains of afterguard.....	27.00	Ship's printers.....	40.00
Quarter gunners.....	27.00	Ship's tailors.....	30.00
Carpenters' mates (see G. O. 311).....	40.90	Ship's barbers.....	30.00
Sailmakers' mates.....	40.00	Painters.....	30.00
Machinists, first class.....	70.00	Cabin stewards.....	37.00
Machinists, second class.....	60.00	Cabin cooks.....	32.00
Machinists, third class.....	50.00	Wardroom stewards.....	37.00
Blacksmiths.....	60.00	Wardroom cooks (see G. O. 311).....	37.00
Armors.....	45.00	Steerage stewards.....	25.00
Captains of hold.....	30.00	Steerage cooks.....	22.00
Ship's cooks.....	35.00	Warrant officers' steward.....	24.00
Ship's corporals.....	28.00	Warrant officers' cooks.....	20.00
Ship's lamplighters.....	25.00	Steward to commanders in chief.....	45.00
Jack-of-the-dust.....	22.00	Cooks to commanders in chief.....	40.00
Carpenter and calkers.....	25.00	Cockswains to commanders in chief.....	35.00
Baymen.....	18.00	Steward to commandants, navy-yards.....	45.00
Seamen.....	24.00	Cooks to commandants, navy-yards.....	40.00
Ordinary seamen.....	19.00	Cockswains to commandants, navy-yards.....	35.00
Landsmen.....	16.00	Masters of bands.....	52.00
Boys.....	10.00	Musicians, first class.....	32.00
Ordinary seamen, second class (apprentices).....	15.00	Musicians, second class.....	30.00
Apprentices, first class.....	11.00	Buglers.....	33.00
Apprentices, second class.....	10.00	Electricians.....	50.00
Apprentices, third class.....	9.00		

CHESTER A. ARTHUR.

GENERAL ORDER {
No. 311.

NOVEMBER 15, 1883.

The following corrections of typographical errors in the Executive order of November 5, 1883, promulgated in General Order No. 310, of November 7, 1883, are hereby made, viz: The pay of carpenters' mates will read \$40 instead of \$40.90, and the pay of wardroom cooks will read \$32 instead of \$37.

EDWARD T. NICHOLS,
Acting Secretary of the Navy.

GENERAL ORDER {
No. 312.

NOVEMBER 24, 1883.

On and after January 1, 1884, General Order No. 208, of April 1, 1876, will be superseded, and the pay of the crews of receiving ships will be regulated by General Order No. 310, of the Navy Department, dated November 7, 1883.

WM. E. CHANDLER,
Secretary of the Navy.

GENERAL ORDER }
No. 313.

NOVEMBER 24, 1883.

The rates of finisher, boiler maker, engineer's blacksmith, armorer's mate, cooper, ship's baker, and second-class painter being abolished by Executive order dated November 5, 1883, and promulgated in General Order No. 310, of the Navy Department, dated November 7, 1883, men holding those ratings in the service on December 31, 1883, will be disposed of as follows, viz: Finishers serving on seagoing or other vessels to be rated first-class machinists; those available on receiving ships and in hospital to be rated second-class machinists. Boiler makers serving on seagoing or other vessels to be rated second-class machinists; those available on receiving ships and in hospitals to be rated third-class machinists. Engineer's blacksmiths and ship's blacksmiths serving on seagoing or other vessels to stand a competitive examination as to their qualifications to perform general blacksmithing work, and those found most capable to be retained as blacksmiths; all others to be discharged from the service, giving such as are entitled thereto the same benefits they would receive had they served out the full term of enlistment. Armorer's mates, coopers, ship's bakers, and second-class painters to be disrated to landsmen, or discharged from the service should they so elect.

The rates of seamen, E. F., and ordinary seamen, E. F., are also abolished, and on and after January 1, 1884, men for the engineer's force will be enlisted as first and second class firemen and coal heavers. Seamen, E. F., and ordinary seamen, E. F., in the service on that date will be rated first and second class firemen, respectively.

All men discharged by this order are to be sent to the United States by the first public opportunity, if serving abroad, unless they desire their discharge on the station.

WM. E. CHANDLER,
Secretary of the Navy.

GENERAL ORDER }
No. 315

JANUARY 4, 1884.

The rating of electrician, the pay of which was fixed by Executive order of November 5, 1883, promulgated in General Order No. 310, dated November 7, 1883, is hereby abolished.

WM. E. CHANDLER,
Secretary of the Navy.

NOTICE.

JANUARY 7, 1884.

In order to facilitate the dispatch of the mails by the postmasters, it is desirable that the "penalty clause" be stamped on the upper right-hand corner of the envelope, as it is now the practice to cancel such stamps.

By direction of the Secretary of the Navy.

JOHN W. HOGG,
Chief Clerk.

GENERAL ORDER }
No. 319.

MAY 19, 1884.

The closing sentence in paragraph 2 of General Order No. 313, of November 24, 1883, should read as follows: Seamen, E. F.; ordinary seamen, E. F.; and landsmen serving in the engineer's force, in the service on that date, will be rated first and second class firemen and coal heavers, respectively.

WM. E. CHANDLER.
Secretary of the Navy.

GENERAL ORDER }
No. 327.

NOVEMBER 21, 1884.

From and after January 1, 1885, the form of honorable discharge from the naval service, authorized by section 1427, Revised Statutes of the United States, will be the "Honorable discharge and continuous-service certificate."

All men (except officers' cooks, stewards, and servants enlisted for special service) now serving under enlistments for three years, or who may hereafter enlist for that period, shall receive an "Honorable discharge and continuous-service certificate" at the expiration of their terms of enlistment, upon the recommendation of their commanding officers.

Any man holding an "Honorable discharge and continuous-service certificate" who reenlists for three years, within three months from the date of his last discharge, shall receive an increase of \$1 per month to the pay prescribed for the rating in which he serves, for each consecutive reenlistment, in addition to the "honorable discharge money."

Any man holding an "Honorable discharge and continuous-service certificate" who fails to reenlist within three months from date of last discharge, will derive no further advantages therefrom.

The Department directs that the records of conduct and professional qualifications on the "Enlistment records" shall be a verification of the recommendations for "Honorable discharge and continuous-service certificate," and hereafter only those shall be recommended who obtain, during their terms of enlistment, a general average of four.

In order that commanding officers of vessels upon which men complete their terms of enlistment shall be informed as to the previous merit of said men, the original "Enlistment record" (Form 12), which accompanies an enlisted man upon his first transfer, will hereafter be carefully preserved and accompany him upon all subsequent transfers, until his term of enlistment has been completed. This form has been amended so as to show the record of conduct as averaged by the commanding officer of the vessel for the period for which the man has served under his command. The final averages will be made by the officer under whom the man is serving at the time his enlistment expires, when about to be discharged. These "Enlistment records" must be forwarded to the Bureau of Equipment and Recruiting."

In addition to the above requirements, enlisted men must serve at least two years and nine months of their terms in order to receive an "Honorable discharge and continuous-service certificate," except in extraordinary cases, which will be provided for by the Department as they may occur.

When any man holding an "Honorable discharge and continuous-service certificate" shall fail to receive a recommendation for its renewal upon the expiration of his term of enlistment, the words "Not entitled to honorable discharge" shall be written on the line below the last entry. Men so discharged will receive no further pecuniary benefit from their "Honorable discharge and continuous service-certificate," and entries of reenlistment or subsequent service must not be noted thereon.

"Good-conduct badges" are special distinctions for fidelity, zeal, and obedience, and will not be granted for the first term of enlistment under "Continuous-service." At the expiration of subsequent reenlistments for three years, within three months from date of discharge, men who hold "Honorable discharge and continuous-service certificates" have obtained a general average of four and five-tenths (4.5) on their conduct records, and are recommended by their commanding officers, will be entitled to and receive said badges. The first badge will be a medal, as hitherto. Subsequent badges to be clasps, with the name of the vessel from which given engraved thereon, to be worn on ribbon above medal. When any enlisted man shall have received three such badges, under consecutive reenlistments as above, he shall be enlisted as a petty officer in the rating in which he is best qualified to serve, and shall continue to hold a petty officer's rating during subsequent continuous reenlistments, and shall not be reduced to a lower rating except by sentence of court-martial.

Paragraphs 18 and 20, page 100, and paragraph 22, page 101, United States Navy Regulations, are hereby annulled.

WM. E. CHANDLER,
Secretary of the Navy.

U. S. NAVY REGULATION CIRCULAR }
No. 41.

JANUARY 8, 1885.

The following classification of petty officers and enlisted men in the Navy and of noncommissioned officers, musicians, and privates in the Marine Corps is hereby adopted.

WM. E. CHANDLER,
Secretary of the Navy.

Classification.

PETTY OFFICERS, FIRST CLASS.

Seaman class.	Special class.	Artificial class.	Marines.
Chief boatswains' mates. Chief quartermasters. Chief gunners' mates.	Master-at-arms. Equipment yeomen. Apothecaries. Paymaster's yeomen. Engineer's yeomen. Ships' writers. Schoolmasters. Bandmasters.	Machinists.	Sergeant-majors. First sergeants.

PETTY OFFICERS, SECOND CLASS.

Boatswains' mates. Quartermasters. Gunners' mates. Coxswains to commander in chief.	Ships' corporals. Ships' cooks. Chief musicians.	Boiler makers. Armorsers. Carpenters' mates. Blacksmiths. Sailmaker's mates. Water tenders.	Sergeants.
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Classification—Continued.

PETTY OFFICERS, THIRD CLASS.

Seaman class.	Special class.	Artificial class.	Marines.
Captains of fore-castle. Captains of main top. Captains of fore top. Captains of mizzen top. Captains of after guard. Coxswains. Quarter gunners. Seamen gunners.	Captains of hold.	Printers. Painters. Oilers.	Corporals.

SEAMEN, FIRST CLASS.

Seamen. Seamen, apprentice, first class.	Lamplighters. Jacks-of-the-dust. Buglers. Musicians, first class. Tailors. Barbers.	Firemen, first class. Carpenters. Calkers.	Musicians. Orderlies.
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SEAMEN, SECOND CLASS.

Ordinary seamen. Seamen, apprentice, second class.	Baymen. Musicians.	Firemen, second class.	Privates.
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SEAMEN, THIRD CLASS.

Landsmen. Apprentices, first class. Apprentices, second class. Apprentices, third class. Boys.		Coal heavers.	
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Messmen, stewards, cooks, and attendants.

GENERAL ORDER }
No. 330. }

DECEMBER 31, 1884.

The following Executive order is published for the information and guidance of all concerned.

WM. E. CHANDLER,
Secretary of the Navy.

EXECUTIVE MANSION,
December 31, 1884.

The Executive order of November 4, 1883, is hereby modified as follows:
The ratings of first, second, and third class machinists are abolished, and hereafter there will be one rating of machinist in the Navy, with the pay of \$70 a month.
New ratings are hereby established as follows:

Rating.	Monthly pay.	Rating.	Monthly pay.
Boiler maker.....	\$60.00	Oilers.....	\$36.00
Water tenders.....	38.00	Chief musician.....	36.00

CHESTER A. ARTHUR.

GENERAL ORDER }
No. 346. }

APRIL 20, 1886.

Hereafter enlisted men of the Navy not under instruction at Newport or Washington when employed in submarine diving will receive extra compensation at the rate of \$1 for each hour so employed under water. Breathing time and other time necessarily out of water will not be deducted if not exceeding fifteen minutes, or one-fifth of the whole time immersed.

Such compensation is to be charged to the bureau for which the service is performed.

WM. C. WHITNEY,
Secretary of the Navy.

GENERAL ORDER }
No. 341. }

NAVY DEPARTMENT,
Washington, January 1, 1886.

General Orders Nos. 272 and 281, relating to seaman gunners, are hereby modified as follows:

Hereafter seamen gunners will not be classed with petty officers, but with seamen, first class, and all seamen who pass through the Ordnance School of Instruction at Newport and Washington *will be rated seamen gunners, upon the completion of the course*, and can not be reduced to a lower rating except by sentence of a court-martial.

The words "qualified as seaman gunner" will be written in red ink across the face of the continuous-service certificate of each person qualified as above, and signed by the inspector of ordnance of the stations at Newport and Washington when the course is completed, with the date of its completion.

The same indorsement will be placed on the continuous-service certificate of any enlisted petty officer who may pass through the course.

All petty officers of the line, armorers, machinists and lamplighters employed in connection with electrical plant, will hereafter be selected exclusively from seamen gunners when available.

Men having qualified as seamen gunners can reenlist as such, even if not enlisted under continuous-service certificate, on giving satisfactory evidence that they have so qualified.

The pay of seamen gunners hereafter will be \$26 per month.

WILLIAM C. WHITNEY,
Secretary of the Navy.

GENERAL ORDER }
No. 409. }

NAVY DEPARTMENT,
Washington, February 25, 1893.

The following Executive order is published for the information and guidance of all persons concerned.

B. F. TRACY,
Secretary of the Navy.

EXECUTIVE MANSION,
Washington, D. C., February 25, 1893.

On and after the 1st day of April, 1893, the pay of the petty officers and other enlisted men of the Navy shall be as follows, but this order shall not reduce the pay or rating of any enlisted man during his present enlistment below the rate or pay at which he was enlisted or in which he is now serving, unless he shall be reduced in rating as provided by law or regulations:

Rating.	Monthly pay.	Rating.	Monthly pay.
Chief masters at arms.....	\$65.00	Painters.....	\$30.00
Chief boatswains' mates.....	50.00	Carpenters' mates, third class.....	30.00
Chief gunners' mates.....	50.00	Firemen, first class.....	35.00
Chief quartermasters.....	50.00	Firemen, second class.....	30.00
Masters at arms, first class.....	40.00	Shipwrights.....	25.00
Boatswains' mates, first class.....	40.00	Sailmakers.....	25.00
Gunners' mates, first class.....	40.00	Coal passers.....	22.00
Quartermasters, first class.....	40.00	Bandmasters.....	52.00
Schoolmasters.....	40.00	Yeomen.....	60.00
Masters at arms, second class.....	35.00	Apothecaries.....	60.00
Boatswains' mates, second class.....	35.00	Writers, first class.....	35.00
Gunners' mates, second class.....	35.00	First musicians.....	36.00
Quartermasters, second class.....	35.00	Writers, second class.....	30.00
Masters at arms, third class.....	30.00	Writers, third class.....	25.00
Coxswains (1).....	30.00	Musicians, first class.....	32.00
Gunners' mates, third class.....	30.00	Musicians, second class.....	30.00
Quartermasters, third class.....	30.00	Buglers.....	30.00
Seamen gunners.....	26.00	Baymen.....	18.00
Seamen (2).....	24.00	Ships' cooks, first class.....	35.00
Apprentices, first class.....	21.00	Ships' cooks, second class.....	30.00
Ordinary seamen.....	19.00	Ships' cooks, third class.....	25.00
Apprentices, second class.....	15.00	Ships' cooks, fourth class.....	20.00
Landmen (3).....	16.00	Stewards to commanders in chief.....	45.00
Apprentices, third class.....	9.00	Stewards to commandants.....	45.00
Machinists.....	70.00	Cabin stewards.....	37.00
Chief carpenters' mates.....	60.00	Wardroom stewards.....	37.00
Boiler makers.....	60.00	Steerage stewards.....	25.00
Coppersmiths.....	60.00	Warrant officers' stewards.....	24.00
Blacksmiths.....	50.00	Cooks to commanders in chief.....	40.00
Carpenters' mates, first class.....	40.00	Cooks to commandants.....	40.00
Plumbers and fitters.....	45.00	Cabin cooks.....	32.00
Water tenders.....	38.00	Wardroom cooks.....	32.00
Sailmakers' mates.....	40.00	Steerage cooks.....	22.00
Oilers.....	36.00	Warrant officers' cooks.....	20.00
Carpenters' mates, second class.....	35.00	Mess attendants.....	16.00
Printers.....	35.00		

(1) Coxswains detailed as coxswains of steam launches or as coxswains to commanders in chief shall receive \$5 per month in addition to their pay.

(2) Seamen in charge of holds shall receive \$5 per month in addition to their pay.

(3) Landmen assigned to duty as jacks-of-the-dust or as lamplighters shall receive \$5 per month in addition to their pay.

BENJ. HARRISON.

GENERAL ORDER {
No. 415.

NAVY DEPARTMENT,
Washington, July 10, 1893.

The act of Congress entitled "An act making appropriations for the support of the Army for the fiscal year ending June 30, 1894, and for other purposes," approved February 27, 1893, establishes the rates of pay to first sergeants and sergeants of the Army, during first enlistment, as shown in the following table, namely:

Year of enlistment.	First year.	Second year.	Third year.	Fourth year.	Fifth year.
First sergeant.....	\$25	\$25	\$26	\$27	\$28
Sergeant.....	18	18	19	20	21

By the provisions of section 1612 of the Revised Statutes, these rates of pay are applicable to the United States Marine Corps, and

accordingly first sergeants and sergeants of said corps will be taken up on the pay rolls of their respective stations and ships from July 1, 1893, at the following rates of pay, viz:

First sergeants.—First enlistment, \$25; first reenlistment, \$29; second reenlistment, \$30; third reenlistment, \$31.

First sergeants who come under Class 3 (those who were receiving reenlistment pay at date of last discharge, but who do not reenlist within the period of thirty days from date of discharge), \$27.

Sergeants.—First enlistment, \$18; first reenlistment, \$22; second reenlistment, \$23; third reenlistment, \$24.

Sergeants who come under Class 3 (those who were receiving reenlistment pay at date of discharge, but who do not reenlist within the period of thirty days from date of discharge), \$20.

The increase of pay for length of service will be as now provided by law.

First sergeants and sergeants, who now are or who may hereafter be placed on the retired list, will be paid three-fourths of the above rates of pay, according to their length of service at date of retirement.

H. A. HERBERT,
Secretary of the Navy.

GENERAL ORDER {
No. 448.

NAVY DEPARTMENT,
Washington, D. C., June 17, 1895.

The following Executive order is published for the information and guidance of all persons concerned.

H. A. HERBERT, *Secretary.*

EXECUTIVE MANSION,
Washington, D. C., June 15, 1895.

On and after July 1, 1895, the pay of machinists, water tenders, oilers, and writers in the Navy shall be as follows, but this order shall not reduce the pay of any enlisted man during his present enlistment below the pay at which he was enlisted, or which he is now receiving:

	Per month
Chief machinists.....	\$70.00
Machinists, first class.....	55.00
Machinists, second class.....	40.00
Water tenders.....	40.00
Oilers.....	37.00
Writers, first class.....	40.00
Writers, second class.....	35.00
Writers, third class.....	30.00

GROVER CLEVELAND.

GENERAL ORDER {
No. 458.

NAVY DEPARTMENT,
Washington, April 7, 1896.

The following provision of the act approved March 16, 1896, entitled "An act making appropriations for the support of the Army for the fiscal year ending June thirtieth, eighteen hundred and ninety-seven," is published for the information and guidance of all concerned:

For pay of enlisted men. * * * *Provided,* That hereafter no pay shall be retained, but this provision shall not apply to deductions authorized on account of the Soldiers' Home.

This provision applies to enlisted men of the U. S. Marine Corps from March 16, 1896, date of approval of the act, from which date pay hitherto retained will be credited and paid as current pay.

The pay table of noncommissioned officers, musicians, and privates of the U. S. Marine Corps published in the U. S. Navy Register is hereby amended as follows:

Grade.	First enlistment or first five years.					First reenlistment or second five years.	Second reenlistment or third five years.	Third reenlistment or fourth five years.	Fourth reenlistment or fifth five years.	Class 3.
	First year.	Second year.	Third year.	Fourth year.	Fifth year.					
Sergeant-major.....	\$23	\$23	\$24	\$25	\$26	\$28	\$29	\$30	\$31	\$26
Quartermaster-sergeant..	23	23	24	25	26	28	29	30	31	26
Drum-major.....	25	25	26	27	28	30	31	32	33	28
First sergeant.....	25	25	26	27	28	30	31	32	33	28
Sergeant.....	18	18	19	20	21	23	24	25	26	21
Corporal.....	15	15	16	17	18	20	21	22	23	18
Drummer and fifer.....	13	13	14	15	16	18	19	20	21	16
Private.....	13	13	14	15	16	18	19	20	21	16
Leader of the band.....	90	90	90	90	90	90	90	90	90	90
Musician, first class.....	34	34	34	34	34	36	37	38	39	34
Musician, second class.....	20	20	20	20	20	22	23	24	25	20
Musician, third class.....	17	17	17	17	17	19	20	21	22	17

NOTE.—“Class 3 is the term used to designate pay of men who have ever received reenlisted pay under the act of August 4, 1864, but have allowed a longer period than one month to elapse before again enlisting. The amount is the same as that received by a man serving in the fifth year of a first enlistment.”

Twenty (20) cents per month will continue to be deducted from the above rates, as usual, for the navy hospital fund.

Strike out the first three paragraphs following the pay table on page 131, Navy Register.

W. McADOO, *Acting Secretary.*

GENERAL ORDER } NAVY DEPARTMENT,
No. 467. } Washington, D. C., September 19, 1896.

The following Executive order is published for the information of all persons concerned.

W. McADOO, *Acting Secretary.*

EXECUTIVE MANSION,
Washington, D. C., September 16, 1896.

On and after October 1, 1896, the pay of yeomen in the Navy shall be as follows, but this order shall not reduce the pay of any enlisted man during his present enlistment below the pay at which he was enlisted, or which he is now receiving:

	Per month.
Chief yeomen.....	\$60.00
Yeomen, first class.....	40.00
Yeomen, second class.....	35.00
Yeomen, third class.....	30.00

GROVER CLEVELAND.

GENERAL ORDER } NAVY DEPARTMENT,
No. 486. } Washington, April 8, 1898.

The following Executive order is published for the information and guidance of all persons concerned.

JOHN D. LONG, *Secretary.*

EXECUTIVE MANSION,
Washington, April 8, 1898.

On and after this date, the pay of electricians in the Navy shall be as follows (but this order shall not reduce the pay of any enlisted man during his present enlistment below the pay at which he was enlisted, or which he is now receiving):

	Per month.
Chief electricians.....	\$50.00
Electricians, first class.....	40.00
Electricians, second class.....	35.00

WILLIAM MCKINLEY.

GENERAL ORDER }
No. 520.

NAVY DEPARTMENT,
Washington, June 30, 1899.

The following instructions are issued governing (1) qualifications for instruction, and (2) the detail, (3) the classification, and (4) the rating of gun captains, and (5) the award of gunnery prizes to men holding gun-captain's certificates.

1. Qualification: (a) Men who have attained special proficiency as marksmen with great guns or small arms, or whose superior intelligence fits them to acquire such proficiency, and who, by force of character and ability to command, are suitable to fill the ratings of gun captains. (b) No person shall be detailed who is not a citizen of the United States.

2. Details for instruction will be made from the following: (a) Apprentices, first class, in the last year of their enlistments having not less than six months to serve. (b) Seamen. (c) Men and apprentices holding either acting or permanent appointments as coxswains or quartermasters, third class.

3. Classification: Upon the completion of the course of instruction on board the gunnery training ship, the percentage attained by each man shall be reported to the Bureau of Navigation, which will issue gun-captain's certificates in three classes, namely:

"A" certificate, to men who have attained a proficiency of 90 per cent and over.

"B" certificate, to men who have attained a proficiency of 75 to 90 per cent.

"C" certificate, to men who have attained a proficiency of 60 to 75 per cent.

Certificates will not be issued to men whose proficiency is less than 60 per cent.

4. Rating: Apprentices, first class, and seamen holding gun-captain's certificates shall be advanced only through the ratings of coxswain and quartermaster, third class, and must have not less than a 4 in signaling.

No man shall be given an acting appointment as a gun captain, second class, who does not hold a gun-captain's certificate, and petty officers, third class, holding gun-captain's certificates and gun captains, second and first classes, shall not be promoted or transferred into any other than the gun-captain branch.

All appointments and advancements of gun captains and men holding gun-captain's certificates shall be in accordance with the Navy Regulations and the instructions governing appointments and advancements of petty officers.

5. Award of prizes: Commanding officers are directed to award to men holding gun-captain's certificates gunnery prizes as follows:

To men holding "A" certificates, \$3 per month.

To men holding "B" certificates, \$2 per month.

To men holding "C" certificates, \$1 per month.

The holder of a gun-captain's certificate shall be paid the award monthly, or proportionately for a fractional part of any month (computed in the same manner as pay, except that he shall not be credited with this award for time out of service between enlistments), from date of completion of course of instruction; and it shall continue throughout his current enlistment and each succeeding reenlistment under honorable discharge, if within four months, until he shall be promoted to gun captain, second class, on which date the award shall cease. The award shall be paid by the pay officers, on public bills, under the appropriation: "Gunnery exercises—Bureau of Navigation."

6. Gun captains, having been trained as leading men, may be assigned, class for class, to fill any vacancy in the complement of a ship in the seaman branch, excepting vacancies for gunner's mates, but their ratings shall not be changed.

JOHN D. LONG,
Secretary.

SPECIAL CIRCULAR {
No. 49.

NAVY DEPARTMENT,
Washington, D. C., July 6, 1899.

Until further orders the enlisted men of the Marine Corps will be allowed the 20 per cent increase in their pay authorized by section 1612, Revised Statutes, and pay officers will credit them accordingly.

JOHN D. LONG, *Secretary.*

GENERAL ORDER {
No. 532.

NAVY DEPARTMENT,
Washington, November 24, 1899.

The Department publishes for the information of the service the following Executive order.

JOHN D. LONG, *Secretary.*

EXECUTIVE MANSION,
Washington, D. C., November 4, 1899.

On and after November 4, 1899, petty officers of the Navy, performing duty which deprives them of quarters, and their rations or commutation thereof, shall receive \$9 per month in addition to the pay of their rating.

WILLIAM MCKINLEY.

GENERAL ORDER {
No. 550.

NAVY DEPARTMENT,
Washington, June 19, 1900.

The following extract from the army appropriation act, approved May 26, 1900, is published for the information of the naval service:

* * * *Provided*, That hereafter the pay proper of all officers and enlisted men serving in Porto Rico, Cuba, the Philippine Islands, Hawaii, and in the Territory of Alaska shall be increased ten per centum for officers and twenty per centum for enlisted men over and above the rates of pay proper as fixed by law in time of peace: *Provided further*, That enlisted men receiving or entitled to the twenty per centum increased pay herein authorized shall not be entitled to or receive any additional increased compensation for what is known as extra or special duty. * * *

In accordance with the above provision, the pay of officers serving on shore in Porto Rico, Cuba, the Philippine Islands, Hawaii, and in the Territory of Alaska will be increased 10 per cent of the pay proper, exclusive of longevity additions, and the pay of enlisted men of the Marine Corps serving on shore in those places will be increased 20 per cent above the regular rates of pay, exclusive of longevity additions; said increase to be computed from and including May 26, 1900.

The 20 per cent increase of pay heretofore allowed to all enlisted men of the Marine Corps will cease from and including May 26, 1900, with the exceptions noted above.

Pay officers are authorized to adjust their accounts accordingly.

F. W. HACKETT,
Acting Secretary.

GENERAL ORDER }
No. 552. }

NAVY DEPARTMENT,
Washington, June 28, 1900.

The following Executive order is published for the information and guidance of all persons concerned.

JOHN D. LONG,
Secretary.

EXECUTIVE MANSION,
Washington, June 27, 1900.

On and after the 1st day of July, 1900, the classification and pay of the rating of electrician shall be as follows, but this order shall not reduce the pay of any enlisted man during his present enlistment below the pay at which he was enlisted, or which he is now receiving:

	Per month.
Electrician, third class.....	\$30.00
Electrician, second class.....	40.00
Electrician, first class.....	50.00
Chief electrician.....	60.00

WILLIAM MCKINLEY.

GENERAL ORDER }
No. 20. }

NAVY DEPARTMENT,
Washington, January 1, 1901.

By authority of the President the Department publishes the rates and pay of the enlisted men of the Navy as follows, but this order shall not reduce the pay or rating of any enlisted man during his present enlistment below the rate or pay at which he was enlisted or in which he is now serving, unless he shall be reduced in rating as provided by law or regulation.

JOHN D. LONG,
Secretary.

Executive order, January 1, 1901.

Rating.	Monthly pay.	Rating.	Monthly pay.
Chief master at arms.....	\$65.00	Oilers.....	\$37.00
Chief boatswains' mates.....	50.00	Carpenters' mates, second class.....	35.00
Chief gunners' mates.....	50.00	Printers.....	35.00
Chief gun captains.....	50.00	Carpenters' mates, third class.....	30.00
Chief quartermasters.....	50.00	Electricians, third class.....	30.00
Master at arms, first class.....	40.00	Painters.....	30.00
Boatswains' mates, first class.....	40.00	Firemen, first class.....	35.00
Gunners' mates, first class.....	40.00	Firemen, second class.....	30.00
Gun captains, first class.....	40.00	Shipwrights.....	25.00
Quartermasters, first class.....	40.00	Coal passers.....	22.00
Master at arms, second class.....	35.00	Chief yeomen.....	60.00
Boatswains' mates, second class.....	35.00	Hospital stewards.....	60.00
Gunners' mates, second class.....	35.00	Bandmasters.....	52.00
Gun captains, second class.....	35.00	Yeomen, first class.....	40.00
Quartermasters, second class.....	35.00	First musicians.....	35.00
Master at arms, third class.....	30.00	Yeomen, second class.....	35.00
Coxswains.....	30.00	Yeomen, third class.....	30.00
Gunners' mates, third class.....	30.00	Hospital apprentices, first class.....	30.00
Quartermasters, third class.....	30.00	Musicians, first class.....	32.00
Seamen gunners.....	25.00	Musicians, second class.....	30.00
Seamen.....	24.00	Buglers.....	30.00
Apprentices, first class.....	21.00	Hospital apprentices.....	20.00
Ordinary seamen.....	19.00	Stewards to commanders in chief.....	45.00
Apprentices, second class.....	15.00	Cooks to commanders in chief.....	40.00
Landsmen.....	16.00	Stewards to commandants.....	45.00
Apprentices, third class.....	9.00	Cooks to commandants.....	40.00
Chief machinists.....	70.00	Cabin stewards.....	37.00
Chief electricians.....	60.00	Cabin cooks.....	32.00
Chief carpenters' mates.....	50.00	Wardroom stewards.....	37.00
Boilermakers.....	60.00	Wardroom cooks.....	32.00
Machinists, first class.....	55.00	Steerage stewards.....	25.00
Electricians, first class.....	50.00	Steerage cooks.....	22.00
Coppersmiths.....	50.00	Warrant officers' stewards.....	24.00
Blacksmiths.....	50.00	Warrant officers' cooks.....	20.00
Plumbers and fitters.....	45.00	Ships' cooks, first class.....	35.00
Sailmakers' mates.....	40.00	Ships' cooks, second class.....	30.00
Carpenters' mates, first class.....	40.00	Ships' cooks, third class.....	25.00
Water tenders.....	40.00	Ships' cooks, fourth class.....	20.00
Machinists, second class.....	40.00	Mess attendants.....	16.00
Electricians, second class.....	40.00		

1. Petty officers of the Navy, performing duty which deprives them of quarters and their rations, or commutation thereof, shall receive \$9 per month in addition to the pay of their rating.

2. All enlisted men of the Navy shall receive \$5 per month, in addition to their pay, while serving on board of submarine vessels of the Navy.

3. Coxswains, detailed as coxswains of boats propelled by machinery, or as coxswains to commanders in chief, shall receive \$5 per month in addition to their pay.

4. Seamen in charge of holds shall receive \$5 per month in addition to their pay.

5. Landsmen assigned to duty as jacks-of-the-dust or as lamplighters shall receive \$5 per month in addition to their pay.

6. Any man who has received an honorable discharge from his last term of enlistment, or who has received a recommendation for reenlistment upon the expiration of his last term of service of not less than three years, who reenlists for a term of four years within four months from the date of his discharge, shall receive an increase of \$1.36 per month to the pay prescribed for the rating in which he serves, for each consecutive reenlistment.

7. Twenty cents per month is deducted from the pay due each officer, seaman, and marine in the Navy, to be applied to the fund for naval hospitals.

8. Mess attendants serving in the Navy who are honorably discharged from service shall receive \$20 as monthly pay of their rating during first reenlistment, and \$24 as monthly pay during second reenlistment, and during each continuous reenlistment thereafter under honorable discharge, provided that service prior to January 1, 1898, shall not be computed in determining increase of pay, and provided further, that the monthly pay of the rating of mess attendants shall not exceed \$24 per month, exclusive of additional compensation for continuous service.

WILLIAM MCKINLEY.

GENERAL ORDER {
No. 40.

NAVY DEPARTMENT,
Washington, April 8, 1901.

The Department publishes for the information and guidance of the service the following Executive Order, authorizing the insular force, United States Navy, and designating the ratings and rates of pay therein:

EXECUTIVE MANSION, April 5, 1901.

The Secretary of the Navy is authorized to enlist in the insular force, United States Navy, which is hereby established, not to exceed five hundred Filipinos in the following ratings and at the rates of pay indicated:

Insular force, United States Navy.

Rates.	Monthly pay.	Rates.	Monthly pay.
Native coxswains	\$15.00	Native firemen, second class	\$15.00
Native seamen	12.00	Native coal passers	11.00
Native ordinary seamen	10.00	Native stewards	15.00
Native machinists, first class	28.00	Native cooks	13.00
Native machinists, second class	20.00	Native mess attendants	8.00
Native firemen, first class	18.00		

WILLIAM MCKINLEY.

JOHN D. LONG,
Secretary.

GENERAL ORDER {
No. 87.

NAVY DEPARTMENT,
Washington, April 24, 1901.

The appropriation "Gunnery exercises, 1902," being now exhausted, no further payments will be made for prizes for small-arm firing, or any further items charged to this appropriation.

JOHN D. LONG,
Secretary.

GENERAL ORDER {
No. 61.

NAVY DEPARTMENT,
Washington, October 17, 1901.

The following Executive order is published for the information and guidance of the service:

On and after January 1, 1902, the following ratings and pay per month are established for the petty officers and other enlisted men of the commissary branch of the United States Navy:

Rating.	Monthly pay.	Rating.	Monthly pay.
Chief commissary steward	\$70.00	Ship's cook, third class	\$30.00
Commissary steward	60.00	Ship's cook, fourth class	25.00
Ship's cook, first class	55.00	Baker, first class	45.00
Ship's cook, second class	40.00	Baker, second class	35.00

Landsmen detailed as crew messmen, shall, while so acting, except when assigned as reliefs during the temporary absence of the regular crew messmen, receive extra compensation at the rate of \$5 per month.

(Signed)

THEODORE ROOSEVELT.

JOHN D. LONG,
Secretary.

GENERAL ORDER }
No. 69.

NAVY DEPARTMENT,
Washington, December 2, 1901.

The following Executive order is published for the information and guidance of the naval service:

EXECUTIVE ORDER.

WHITE HOUSE, *November 26, 1901.*

From and after January 1, 1902, all enlisted men of the Navy will be allowed 75 cents per month in addition to the pay of their ratings for each good conduct medal, pin, or bar issued for services terminating after December 31, 1901.

THEODORE ROOSEVELT.

JOHN D. LONG,
Secretary.

GENERAL ORDER }
No. 70.

NAVY DEPARTMENT,
Washington, December 5, 1901.

The following Executive order is published for the information and guidance of the naval service:

WHITE HOUSE, *December 3, 1901.*

From and after January 1, 1902, each enlisted man of the Navy who holds a certificate as a graduate from the Petty Officers' School of Instruction, Naval Training Station, Newport, R. I., shall receive \$2 per month in addition to the pay of his rating.

THEODORE ROOSEVELT.

JOHN D. LONG,
Secretary.

GENERAL ORDER }
No. 73.

NAVY DEPARTMENT,
Washington, December 11, 1901.

The Department publishes for the information and guidance of the service the following Executive order:

WHITE HOUSE, *December 9, 1901.*

From and after January 1, 1902, the classification and monthly pay of mess attendants in the U. S. Navy shall be as follows:

Mess attendants, first class.....	\$24.00
Mess attendants, second class.....	20.00
Mess attendants, third class.....	18.00

T. ROOSEVELT.

JOHN D. LONG,
Secretary.

GENERAL ORDER }
No. 76.

NAVY DEPARTMENT,
Washington, December 26, 1901.

Paragraph 8 of General Order No. 20, dated January 1, 1901, is hereby rescinded, and pay officers are authorized to check all amounts which have been credited to mess attendants in excess of \$16, in compliance with the provisions of that paragraph. This order does not apply to the \$1.36 per month allowed by law for consecutive reenlistments.

All mess attendants now in the service shall be rated mess attendants, third class, on January 1, 1902.

JOHN D. LONG,
Secretary.

GENERAL ORDER }
No. 79. }

NAVY DEPARTMENT,
Washington, January 7, 1902.

The following Executive order, modifying General Order No. 61 of October 17, 1901, is published for the information and guidance of the service:

WHITE HOUSE,
Washington, January 7, 1902.

Executive order, dated October 15, 1901, establishing ratings and pay for enlisted men of the commissary branch of the U. S. Navy, is so far modified as to change the first word in the footnote from "Landsmen" to "Enlisted men."

THEODORE ROOSEVELT

JOHN D. LONG,
Secretary.

GENERAL ORDER }
No. 91. }

NAVY DEPARTMENT,
Washington, June 25, 1902.

The following Executive order, affecting General Orders Nos. 69 and 70, is published for the information and guidance of the service:

WHITE HOUSE, *June 24, 1902.*

Executive order of November 26, 1901, relative to additional compensation for enlisted men of the Navy holding good-conduct medals, pins, or bars, and Executive order of December 3, 1901, relative to additional compensation for enlisted men holding certificates as graduates from the petty officers' school of instruction, are hereby revoked, to take effect July 1, 1902, from which date the following substitutes shall take effect:

Each enlisted man of the Navy shall receive 75 cents per month, in addition to the pay of his rating, for each good-conduct medal, pin, or bar which he may heretofore have been, or shall hereafter be, awarded.

Each petty officer holding a certificate of graduation from the petty officers' school of instruction, or as gun captain, or both, shall receive \$2 a month in addition to the pay of his rating.

THEODORE ROOSEVELT.

WILLIAM H. MOODY,
Secretary.

GENERAL ORDER }
No. 94. }

NAVY DEPARTMENT,
Washington, July 8, 1902.

The Department publishes for the guidance of the service the information that the naval appropriation bill, approved July 1, 1902, for the fiscal year 1903, provides for outfits at \$45 each, for naval apprentices, hospital apprentices, landsmen under training for seamen, and all other enlisted men of the Navy, on first enlistment.

WILLIAM H. MOODY,
Secretary.

GENERAL ORDER }
No. 101.

NAVY DEPARTMENT,
Washington, August 4, 1902.

The following Executive order, supplementing General Order, No. 91, dated June 25, 1902, is published for the information and guidance of the service:

WHITE HOUSE, *August 1, 1902.*

From and after July 1, 1902, each enlisted man that has been rated seaman gunner prior to April 1, 1902, or that holds a certificate of graduation from the petty officers' school, seaman gunner class, shall receive \$2 per month in addition to the pay of his rating during current and subsequent enlistments.

THEODORE ROOSEVELT.

CHAS. H. DARLING,
Acting Secretary.

GENERAL ORDER }
No. 102.

NAVY DEPARTMENT,
Washington, August 6, 1902.

1. The following Executive order is published for the information and guidance of the service:

WHITE HOUSE,
Washington, D. C., August 4, 1902.

From and after this date the following ratings and rates of pay for same are established in the naval service:

Shipfitter, first-class, \$55.

Shipfitter, second-class, \$40.

Men enlisted in these ratings to be petty officers, first or second class, respectively.

THEODORE ROOSEVELT.

2. The complements of all vessels of the first and second rate are amended so as to include one shipfitter, first-class, and one shipfitter, second-class. Vessels of the third rate are allowed one shipfitter, second-class.

3. The specialty work on the rating badge for shipfitter shall be the same as that for blacksmiths.

CHAS. H. DARLING,
Acting Secretary.

GENERAL ORDER }
No. 103.

NAVY DEPARTMENT,
Washington, August 18, 1902.

The following Executive order is published for the information and guidance of the service:

WHITE HOUSE, *August 13, 1902.*

From and after this date the following ratings and rates of pay per month are established:

Painters, first class.....	\$40.00
Painters, second class.....	35.00
Painters, third class.....	30.00
Stewards, for commander in chief or commandants.....	60.00
Cooks, for commander in chief or commandants.....	50.00
Cabin and wardroom stewards.....	50.00
Cabin and wardroom cooks.....	45.00
Steerage and warrant officers' stewards.....	35.00
Steerage and warrant officers' cooks.....	30.00
Coppersmiths.....	55.00
Boiler makers.....	65.00

THEODORE ROOSEVELT.

All painters now in the service will be rated painters, third class. All painters that have served two years satisfactorily in that rating, with an average of at least 4 in proficiency in rating, conduct, and sobriety, and establish their qualifications by a practical examination, may be rated painters, second class.

Painters, second class, will be required to serve one year in that rating, with an average of at least 4 in proficiency in rating, conduct, and sobriety, before being rated painters, first class.

CHAS. H. DARLING,
Acting Secretary.

GENERAL ORDER {
No. 108.

NAVY DEPARTMENT,
Washington, September 11, 1902.

The following Executive order is published for the information and guidance of the service:

WHITE HOUSE, *September 4, 1902.*

Executive orders of June 25, 1902, and August 4, 1902, are hereby rescinded, and from and after July 1, 1902, every enlisted man and apprentice who has been rated a seaman gunner, or holds a gun captain's certificate, or a certificate of graduation from one or more classes of the Petty Officers' School of Instruction, shall receive \$2 per month in addition to the pay of his rating for each such certificate, viz:

	Per month.
For certificate as seaman gunner, or from seaman gunner class.....	\$2. 00
For certificate as gun captain, or from gun captain class.....	2. 00
For certificate from petty officer class.....	2. 00
For certificate from artificer class.....	2. 00
For certificate from machinist class.....	2. 00
For certificate from electrical class.....	2. 00

Every enlisted man of the Navy shall receive 75 cents per month, in addition to the pay of his rating, for each good-conduct medal, pin, or bar which he may heretofore have been or shall hereafter be awarded.

THEODORE ROOSEVELT.

All men who successfully complete, or have completed, the prescribed course in any of the above-mentioned classes, and have been reported qualified, will, upon the recommendation of their commanding officers to the Bureau of Navigation, receive certificates of graduation. The Bureau of Navigation will be informed as to any men who are entitled to certificates as indicated above and who have not yet received them.

In accordance with the provisions of the above Executive order, General Orders No. 91 and No. 101 are hereby revoked.

Respectfully,

WILLIAM H. MOODY, *Secretary.*

GENERAL ORDER {
No. 110.

NAVY DEPARTMENT,
Washington, D. C., October 22, 1902.

The following Executive order is published for the information and guidance of the service:

WHITE HOUSE,
Washington, D. C., October 20, 1902.

Enlisted men of the naval service regularly detailed as signalmen shall receive the following extra compensation in addition to the monthly pay of the rating which they may hold:

Signalmen, first class.....	\$3. 00
Signalmen, second class.....	2. 00
Signalmen, third class.....	1. 00

THEODORE ROOSEVELT.

From and after the date of receipt of this order all seamen, ordinary seamen, landsmen, or apprentices who may be detailed as signalmen will be allowed this extra compensation.

Flagships will be allowed four signalmen, first class; four signalmen, second class, and four signalmen, third class.

Vessels of the first rate will be allowed four signalmen, first class, and four signalmen, second class.

Vessels of the second rate will be allowed four signalmen, first class; two signalmen, second class, and two signalmen, third class.

Vessels of the third rate will be allowed three signalmen, first class; one signalman, second class, and two signalmen, third class.

This, however, does not increase the allowed complement of any vessel as at present established, but is merely an allowance to men detailed as signalmen.

CHAS. H. DARLING,
Acting Secretary.

GENERAL ORDER {
No. 130.

NAVY DEPARTMENT,
Washington, May 15, 1903.

Hereafter apprentices appointed as petty officers, third class, of the seaman branch, under article 856, Navy Regulations, shall be eligible for advancement under the same rules that apply to other petty officers.

CHAS. H. DARLING,
Acting Secretary.

GENERAL ORDER {
No. 134.

NAVY DEPARTMENT,
Washington, June 26, 1903.

The following Executive order is published for the information and guidance of the service:

WHITE HOUSE,
Washington, D. C., June 26, 1903.

All chief petty officers of the Navy whose pay is not fixed by law, including chief water tenders, which rating is hereby established, who, on or after July 1, 1903, shall receive permanent appointments after qualifying therefor by passing such examination as the Secretary of the Navy may prescribe, shall be paid at the rate of \$70 a month; those who serve under permanent appointments issued prior to said date, or under acting appointments, shall be paid at the rates now in force. The pay of chief water tenders who hold acting appointments shall be \$50 a month. Nothing herein contained, however, shall operate to reduce the present pay of any enlisted man in the Navy.

THEODORE ROOSEVELT.

On and after July 1, 1903, permanent appointments will be issued by the Bureau of Navigation to chief petty officers in the service only after the fitness of the man for promotion shall have been shown before a board consisting of three officers detailed from a ship or ships other than the one on board of which the candidate is serving. The examination shall show that the applicant is in all respects fitted to fill the rating in which he seeks a permanent appointment. Such appointments will entitle the holder to draw pay at the rate of \$70 per month.

All persons holding permanent appointments as chief petty officers issued prior to July 1, 1903, may qualify by passing examination as above. In the event of their qualifying they will be given new permanent appointments by the Bureau of Navigation from the date they pass their examination.

Chief petty officers who hold permanent appointments issued prior to July 1, 1903, and who do not qualify by examination; those who reenlist under permanent appointments issued prior to July 1, 1903, and those who have acting appointments will draw pay under the present pay table until such time as they qualify by examination and are given permanent appointments.

When these permanent appointments are presented to the pay officer for an increase in pay, he will procure orders from the commanding officer upon S. and A. Form No. 22 (Ratings and Disratings) to make the appropriate changes on his books.

W. H. MOODY, *Secretary*.

GENERAL ORDER }
No. 137. }

NAVY DEPARTMENT,
Washington, July 25, 1903.

The following Executive order is published for the information and guidance of the naval service:

WHITE HOUSE, *July 25, 1903.*

Enlisted men of the Navy, after having qualified as gun pointers, according to standards of marksmanship and rules that may be prescribed from time to time by the Secretary of the Navy, and who are regularly detailed as gun pointers by the commanding officer of a vessel, shall receive monthly, in addition to the pay of their respective ratings, extra pay as follows:

Heavy gun pointers, first class, \$10; second class, \$6; for the class of guns comprising those of 8-inch caliber or larger.

Intermediate gun pointers, first class, \$8; second class, \$4; for the class of guns comprising those of 4-inch to 7-inch caliber, inclusive.

Secondary gun pointers, first class, \$4; second class, \$2; for the class of guns comprising those of 1-pounder to 3-inch caliber, inclusive.

Extra pay shall be allowed a qualified gun pointer during not less than two years from and after the date of his qualifying, but only while he is regularly detailed as a gun pointer at a gun of the class at which he qualified.

The following ratings and rates of pay per month for the same are hereby established in the naval service:

Chief turret captain, holding acting appointment as such, \$60; holding a permanent appointment as such, \$70.

Turret captain, first class, \$50.

Enlisted men of the Navy regularly detailed by the commanding officer of a vessel as gun captains, except as secondary battery guns, shall receive, in addition to the pay of their respective ratings, \$5 per month, which, in the case of men holding certificates as gun captains or of graduation from the gun-captain class, petty officers' school, shall include the \$2 per month to which such certificates entitle them.

This order shall go into effect October 1, 1903.

THEODORE ROOSEVELT.

In pursuance of the provisions of the foregoing order, the following instructions will be observed:

RULES GOVERNING EXTRA PAY TO GUN POINTERS.

The standards of marksmanship entitling men to extra pay as gun pointers (first and second classes) of the three classes of guns (heavy, intermediate, and secondary) will be announced by the Department as soon as practicable after the completion of the record target practice to be held early in 1904. These standards are subject to change yearly.

A gun pointer's "gunnery record" will be his sole certificate of qualification, and the rate of his extra pay as a qualified gun pointer will be determined by his score at an annual record target practice, signed by the chief umpire detailed for the ship at that practice.

As soon as the official announcement of standards of marksmanship is received, the commanding officer of each vessel shall direct the pay officer (using S. and A. Form No. 236, "Order for extra compensation for enlisted men") to credit the men that have qualified as gun pointers, first or second class, with the extra pay allowed them respectively by the foregoing Executive order; and over the men's names on the pay roll shall be entered in red ink the abbreviations "H. G. P., 1st Cl.," "H. G. P., 2d Cl.," "I. G. P., 1st Cl.," "I. G. P., 2d Cl.," "S. G. P., 1st Cl.," "S. G. P., 2d Cl.," as the case may be. Such extra pay shall be allowed from the date that the vessel on which the pointer qualifies completes her record target practice.

A gun pointer shall receive extra pay as such only during the time that he is regularly detailed by the commanding officer of the vessel as a gun pointer at a gun of a class at which he has qualified; if he has qualified at more than one class of gun, he shall receive only the extra pay allowed for a gun of the class at which he is regularly detailed as gun pointer.

Although the standards of marksmanship are subject to change yearly, a pointer that qualifies at any annual record practice is entitled to the corresponding extra pay for all the time during the ensuing period of two years that he is regularly detailed as a gun pointer at a gun of the class at which he qualified at that practice.

A qualified gun pointer reenlisting for four years within four months of his discharge, and regularly stationed as a gun pointer at a gun of a class at which he was qualified at the time of his discharge, shall be entitled to the corresponding extra pay during the unexpired portion of the period of two years from the date of qualifying—the interval of time between the date of his discharge and reenlistment to be included in the period of two years.

QUALIFICATIONS AND APPOINTMENT OF TURRET CAPTAINS.

The qualifications required for the duties of turret captain are sufficient knowledge and ability to drill the turret crews and to control the fire of the guns in action in the absence of the turret officer, and the mechanical knowledge and skill necessary to overhaul all parts of the turret and gun gear and keep them at all times in efficient condition.

For each 10-inch, 12-inch, and 13-inch turret, and for each combination of superimposed turrets, one chief turret captain is allowed;

but a turret captain, first class, may be assigned to any such turret for which no chief turret captain is available. For each 8-inch turret (not superimposed) one turret captain, first class, is allowed.

To fill these ratings, wholly or in part, commanding officers will select candidates that appear to possess the necessary qualifications from gunner's mates, seamen gunners, men holding the rate of gun captain or certificate of graduation from the petty officers' school, gun captain class, and other intelligent men—not alone of the seaman branch—of mechanical bent and good promise as leading men. The names of these men shall be sent to the squadron commander, who will order their examination before a board of not less than three officers, the majority to be turret officers if practicable, to be appointed by him, none of whom shall be taken from the ship to which the candidates belong. Commanding officers shall nominate at least two candidates for each vacancy as turret captain, in order that the examination may be competitive.

The candidates that pass the examination will be eligible for acting appointments as turret captains, first class; but no chief petty officer shall be rated a turret captain, first class, against his will. Permanent appointments and advancement will be governed by the same regulations that apply to other petty officer ratings.

EXTRA PAY FOR GUN CAPTAINS.

When the commanding officer details a petty officer or other enlisted man as a gun captain he shall direct the pay officer to credit him with the extra pay allowed by the foregoing Executive order (using S. and A. Form No. 236, "Order for extra compensation for enlisted men"), and over the man's name on the pay roll shall be entered in red ink the abbreviation "G. C."

DISCONTINUING EXTRA PAY.

When the commanding officer revokes the detail of a man as a gun captain or gun pointer he shall, in writing, direct the pay officer to discontinue the corresponding extra pay.

WILLIAM H. MOODY,
Secretary.

GENERAL ORDER {
No. 164. }

NAVY DEPARTMENT,
Washington, July 22, 1904.

The following Executive order is issued for the information and guidance of the service:

WHITE HOUSE, *June 28, 1904.*

From and including July 1, 1904, all enlisted men of the U. S. Marine Corps regularly detailed as gun pointers, messmen, or signalmen, or holding good conduct medals, pins, or bars, shall receive the same extra compensation in addition to their monthly pay as is now or may hereafter be allowed to enlisted men of the Navy.

Provided. That nothing herein contained shall be construed to entitle any person to back pay for medals, pins, or bars held, or for other services rendered as hereinbefore referred to, or otherwise.

(Signed)

THEODORE ROOSEVELT.

CHAS. H. DARLING,
Acting Secretary.

GENERAL ORDER {
No. 168.

NAVY DEPARTMENT,
Washington, September 9, 1904.

The following Executive order, affecting General Order No. 108, is published for the information and guidance of the service:

WHITE HOUSE, *September 5, 1904.*

The Executive order of September 4, 1902, authorizing additional pay to certain enlisted men of the Navy, is hereby so far modified that, hereafter the date of the award of a good-conduct medal, pin, or bar shall be the date of the holder's discharge by reason of the expiration of the enlistment for which the medal, pin, or bar is given. the allowance of 75 cents per month to be reckoned from said date of award: *Provided*, That nothing in this order shall be construed to authorize any change in the date of award of any good-conduct medal, pin, or bar heretofore awarded, or to grant any arrears of allowances on account thereof.

THEODORE ROOSEVELT

PAUL MORTON,
Secretary.

GENERAL ORDER {
No. 186.

NAVY DEPARTMENT,
Washington, June 5, 1905.

The following Executive order is published for the information and guidance of the service:

Any enlisted man of the Navy detailed to perform the duties of ship's tailor on board of a vessel having a complement of 600 men or more, exclusive of marines, shall receive \$20 per month in addition to the monthly pay of his rating; on a vessel having a complement of from 300 to 600 men, exclusive of marines, \$15 per month in addition to the monthly pay of his rating; on a vessel having a complement of less than 300 men, exclusive of marines, \$10 per month in addition to the monthly pay of his rating. Any enlisted man of the Navy detailed as tailor's helper on board of a vessel having a complement of 600 men or more, exclusive of marines, shall receive \$10 per month in addition to the monthly pay of his rating: *Provided*, That the total pay of an enlisted man detailed to perform the duties of ship's tailor, shall not exceed \$50 per month, and of tailor's helper shall not exceed \$40 per month.

THEODORE ROOSEVELT.

THE WHITE HOUSE,
June 2, 1905.

From and after July 1, 1905, vessels having a complement of 600 men or more, exclusive of marines, will be allowed one ship's tailor and one tailor's helper; vessels having a complement of less than 600 men and more than 100 men will be allowed one ship's tailor.

Men detailed for duty as ship's tailors, or as tailor's helpers, will be assigned to the paymaster's division and perform the duties of their detail without reference to the rating held by them. It shall be their duty to alter, when necessary, without expense to the enlisted men of the Navy, all uniforms, caps, and clothing issued by the paymaster.

The above does not increase the allowed complement of any vessel as at present established.

PAUL MORTON, *Secretary.*

GENERAL ORDER }
No. 9.

NAVY DEPARTMENT,
Washington, November 9, 1905.

The following Executive order is published for the information and guidance of the service:

Besides the \$5 per month extra pay allowed them for submarine service, enlisted men serving with submarine torpedo boats, and having been reported by their commanding officers to the Navy Department as qualified for submarine torpedo boat work, shall receive \$1 additional pay for each day during any part of which they shall have been submerged in a submarine torpedo boat while under way: *Provided, however,* That such further additional pay shall not exceed \$15 in any one calendar month.

THEODORE ROOSEVELT.

THE WHITE HOUSE, *November 8, 1905.*

Men to be eligible for recommendation by their commanding officers as "qualified for submarine torpedo boat work" must fulfill the requirements prescribed from time to time by the Bureau of Navigation.

Service on a submarine torpedo boat shall be counted sea service for all purposes of rating, but in examinations for permanent appointment petty officers who have served their probationary period wholly or in part on vessels of this class will be required to show such proficiency in all the usual duties of their respective ratings as will qualify them to serve in such rating on vessels of any class. The examinations for permanent appointment as chief petty officer, called for in article 852, paragraph 2, of the Navy Regulations, shall be conducted by officers other than those on duty with submarine torpedo boats.

Whenever a submarine torpedo boat is engaged on duty under water, it shall be accompanied by a tender which shall be capable of including comfortable accommodations for the officers and men of the submarine.

Time spent by officers on duty with submarine torpedo boats shall count as part of a cruise.

CHARLES J. BONAPARTE, *Secretary.*

SPECIAL ORDER }
No. 4, Revised.

NAVY DEPARTMENT,
Washington, February 8, 1906.

The following pay table for officers of the Naval Auxiliary Service shall become effective from and after January 1, 1906:

	Per month.
Master.....	\$200
First officer.....	90
Second officer.....	60
Third officer.....	45
Chief engineer.....	140
First assistant engineer.....	80
Second assistant engineer.....	65
Third assistant engineer.....	50
Electrician.....	55
Clerk.....	50

Masters and chief engineers will receive 10 per cent in addition to the above pay for every five years of continuous service in that grade; but the pay of a master shall not exceed \$300 per month, and that of a chief engineer \$200 per month.

All other officers, except clerks, shall receive 10 per cent additional for every five years of continuous service in the grade in which they are serving; but such advance shall never exceed 40 per cent for first officers and first assistant engineers, and 20 per cent for the others.

Officers who are now receiving a higher pay than they would receive by the above table may continue to draw their present rate of pay until promoted to a higher grade.

Officers on furlough will not receive pay or allowance for subsistence, nor will the period of furlough count in computing length of service for increase of pay; but such officers when again ordered to duty will be entitled to the same rate of pay and allowance for subsistence they were receiving at the date they were furloughed.

CHARLES J. BONAPARTE,
Secretary.

GENERAL ORDER,)
No. 27. (

NAVY DEPARTMENT,
Washington, October 15, 1906.

1. Enlisted men of the Marine Corps, qualified as expert riflemen, are entitled to \$3 per month, those qualified as sharpshooters to \$2 per month, and those qualified as marksmen to \$1 per month, in addition to their pay, from the date of qualification to the close of the next succeeding regular practice season, provided that during that time they continue to be members of an organization armed with a rifle or reenlist in such organization within three months from date of discharge.

2. If a marine, having qualified as an expert rifleman, fails in the next succeeding practice year to requalify as such, he is entitled to the classification and pay of a sharpshooter until the close of the next succeeding practice season following such failure to requalify. Similarly, if a marine who is classified as a sharpshooter fails in the next succeeding regular practice season to requalify as such, he is entitled to the classification and pay of a marksman until the close of the next succeeding regular practice season following such failure to requalify. If a marksman fails to requalify as such, his additional pay will cease at the close of the regular practice season next succeeding that in which he qualified. If a marine, through the exigencies of the service, is not given an opportunity in the next succeeding regular practice season to requalify for a classification already attained, he will be entitled to the pay of such classification until the close of the next regular practice season in which opportunity to requalify is given him.

3. The fact of qualification will be evidenced in certificates issued by headquarters United States Marine Corps, which will show the date of actual qualification from which the marine is entitled to increased pay, and the first muster rolls rendered to the adjutant and inspector's department, and such pay rolls upon which credits for this extra compensation appear will give the number and date of the certificate of qualification. Hold-over classifications will be evidenced by indorsements to be entered, upon authority of the commandant, United States Marine Corps, upon the original certificate of qualification in the particular case. When a marine ceases to be entitled to the additional pay herein provided for, or such

additional pay is reduced through failure to requalify, the fact will be noted on the muster rolls rendered to the adjutant and inspector's department and upon the pay rolls wherein the credits for extra compensation cease.

4. Commanding officers of vessels of the Navy where marines are serving afloat, and commanding officers of marines serving on shore, will furnish to the paymaster upon whose pay rolls credits for the extra compensation above provided appear, certified copies of certificates of qualification, together with all indorsements thereon in each case, which will be accepted by pay officers of the Navy and the paymasters of the Marine Corps as pay roll vouchers supporting these credits and as evidence of the right of the enlisted man concerned to receive pay corresponding to the man's classification from the date of qualification, if such be not prior to June 12, 1906, otherwise from that date, and to continue to receive this compensation in the manner and until the dates above provided for.

CHARLES J. BONAPARTE,
Secretary.

GENERAL ORDER {
No. 28. }

NAVY DEPARTMENT,
Washington, October 20, 1906.

The following Executive order is promulgated for the information and guidance of the naval service:

Prizes for excellence in gunnery exercise and target practice, both afloat and ashore, in all competitions occurring subsequently to June 30, 1906, shall be awarded and paid to enlisted men of the Marine Corps in like manner, in the same amounts, and under the same conditions as to enlisted men of the Navy.

THEODORE ROOSEVELT.

CHARLES J. BONAPARTE,
Secretary.

GENERAL ORDER {
No. 31. }

NAVY DEPARTMENT,
Washington, D. C., October 29, 1906.

In accordance with the act of Congress approved June 29, 1906, "making appropriations for the naval service for the fiscal year ending June 30, 1907, and for other purposes," the Department directs that any man enlisting on or after December 1, 1906, who is discharged during the first six months of a first enlistment for any cause other than disability incurred in the line of duty shall have checked against his accounts prior to discharge the cost of such portion of outfit allowed on first enlistment as he may have drawn.

TRUMAN H. NEWBERRY,
Acting Secretary.

GENERAL ORDER {
No. 34. }

NAVY DEPARTMENT,
Washington, November 28, 1906.

The following Executive order is published for the information and guidance of the service:

To provide adequate compensation for trained men, the pay now prescribed by Executive order for each rating in the Navy is hereby increased \$5 per month during

the second period of service and a further sum of \$3 per month during each and every subsequent period of service: *Provided*, That only enlisted men who are citizens of the United States, and whose second and subsequent periods of service each follow next after service in the Navy that was terminated by reason of expiration of enlistment, shall receive the benefits of the increased pay named herein: *Provided further*, That in the cases of men who are or were finally discharged from the Navy by reason of expiration of enlistment, the first enlistment on or after the date of this order shall be considered the second period of service which shall carry with it the increased pay provided by this order; except that men discharged on recommendations of boards of medical survey, shall, if they reenter the service, be given credit for any previous periods of service in the Navy which were terminated by reason of expiration of enlistment.

Chief petty officers detailed as instructors of apprentice seamen at naval stations who qualify as instructors by examination shall receive hereafter in addition to their pay the sum of \$10 per month while so detailed, such pay to be considered extra pay for special duty.

Apprentice seamen detailed as apprentice chief petty officers, apprentice petty officers, first, second, or third class, in connection with the instruction of apprentice seamen at naval stations, shall receive hereafter in addition to their pay the sum of \$2.50, \$2, \$1.50, and \$1 each per month, respectively, while so detailed, such pay to be considered extra pay for special duty.

THEODORE ROOSEVELT.

THE WHITE HOUSE, November 27, 1906.

Chief petty officers must be citizens of the United States and serving under continuous service in order to be eligible for examination for detail as instructors of apprentice seamen at naval stations. They must also qualify in accordance with the requirements prescribed from time to time by the Bureau of Navigation.

The complement of apprentice seamen authorized at each naval station as apprentice petty officers will be four (one of each rating) for each 75 apprentice seamen under training at the station.

G. A. CONVERSE,
Acting Secretary.

GENERAL ORDER {
No. 41. }

NAVY DEPARTMENT,
Washington, February 9, 1907.

The following Executive order, amending Executive order of August 13, 1902, which was promulgated in General Order No. 104 of August 16, 1902, is published for the information and guidance of the service:

In time of peace any enlisted man of the Marine Corps, serving in his first enlistment, who is not undergoing punishment or under charges, and who is not in debt to the Government, may after one year from the date of his enlistment in the Marine Corps apply for the privilege of purchasing his discharge.

An enlisted man wishing this privilege will make application to the Commandant of the Marine Corps through official channels, giving his reasons in full for desiring his discharge. In general, no reasons will be considered as sufficient to warrant discharge unless it can be shown conclusively that these reasons did not exist prior to enlistment.

Upon the receipt of an application made as prescribed herein, and fulfilling the conditions given, the Commandant of the Marine Corps may direct the discharge requested at his discretion. The price of purchase will consist of the travel allowances due on discharge, which will be retained by the United States in all cases, and in addition thereto the following:

After one year's service.....	\$120
After two years' service.....	100
After three years' service.....	90

When an enlisted man of the Marine Corps makes application for discharge by purchase on account of dependency of a near relative, and shows in connection therewith that a state of destitution exists, that he has to the extent of his opportunities and

ability made contributions to the support of such relative, but that these contributions have proved insufficient to relieve the destitution, the Commandant of the Marine Corps may, in his discretion, remit such part of the purchase price of discharge as may seem proper and necessary by reason of the inability of the enlisted man to pay the full amount.

THEODORE ROOSEVELT.

THE WHITE HOUSE, *February 4, 1907.*

Commanding officers, before forwarding applications for discharge by purchase, will make careful inquiry into each case, with a view to determining whether there is any reason why the applicant should not be so discharged, and whether a satisfactory reason has been offered as a basis for the application. All available information bearing on the granting or withholding of the privilege requested, together with the state of the man's account, will be forwarded in the form of an indorsement on the application, by the commanding officer, who will either approve the request or state his reasons for his disapproval.

All requests of enlisted men of the Marine Corps for discharge by purchase will be forwarded to the Brigadier General, Commandant, who is authorized to act upon them.

Article 989, United States Navy Regulations, is amended accordingly.

V. H. METCALF,
Secretary.

GENERAL ORDER {
No. 43.

NAVY DEPARTMENT,
Washington, D. C., April 6, 1907.

On and after July 1, 1907, all enlisted men of the Navy shall receive, on first enlistment, outfits amounting in value as follows:

Commanding officers will direct which of the above amounts is to be allowed in each case of first enlistment.

Samoans and such men of the messman branch as are not required to possess complete outfits, not to exceed.....	\$20.00
Men of the insular force, not to exceed.....	30.00
All other enlisted men, not to exceed.....	60.00

Attention is called to the Uniform Regulations, 1905, pages 53 and 54, regarding the portions of outfits to be issued on enlistment, and on transfer to cruising vessels; also to General Order 31, of October 29, 1906, regarding the checkage against the accounts of men discharged during the first six months of first enlistment for any cause other than disability incurred in the line of duty, of the cost of such portion of the allowed outfit as may have been drawn.

V. H. METCALF,
Secretary.

GENERAL ORDER {
No. 46.

NAVY DEPARTMENT,
Washington, May 8, 1907.

The following Executive order, dated September 18, 1906, is published for the information and guidance of the naval service, viz:

THE WHITE HOUSE,
September 18, 1906.

Enlisted men of the Marine Corps, regularly detailed as messmen in a command, not to exceed in number one for every twenty men, shall receive the same compensation in addition to their monthly pay as is now or may hereafter be allowed enlisted

men of the Navy under like circumstances: *Provided, however*, That marines must serve as messmen a whole month to be entitled to this extra compensation, and shall not be paid for service as such for fractional parts of a month.

(Signed)

THEODORE ROOSEVELT.

The provisions of the foregoing order are exclusively applicable to cases of enlisted men of the Marine Corps on shore duty. The detail of such enlisted men as messmen afloat and the payment of the compensation provided therefor shall be made in all respects as now obtains in like cases of enlisted men of the Navy.

V. H. METCALF,
Secretary.

CHANGES IN REGULATIONS FOR THE NAVAL AUXILIARY SERVICE.

NAVY DEPARTMENT,
Washington, July 17, 1907.

The following changes in the "Regulations for the Naval Auxiliary Service," issued April 1, 1907, are approved, to take effect October 1, 1907.

TRUMAN H. NEWBERRY,
Acting Secretary.

Paragraph 56, amend to read as follows:

"56. The following schedule of wages will be strictly adhered to in regard to all persons now, or who may hereafter be, in the service, except so far as pertains to contracts already entered into:

Master.....	\$200.00	Quartermaster.....	\$35.00
First officer.....	100.00	Seaman.....	30.00
Second officer.....	80.00	Water tender.....	40.00
Third officer.....	60.00	Oiler.....	40.00
Chief engineer.....	140.00	Fireman.....	35.00
First assistant engineer.....	90.00	Coal passer.....	30.00
Second assistant engineer.....	80.00	Steward.....	50.00
Third assistant engineer.....	70.00	First cook.....	45.00
Electrician.....	60.00	Second cook.....	30.00
Clerk.....	50.00	Messman.....	20.00
Boatswain.....	45.00	Cabin boy.....	18.00
Carpenter.....	45.00		

Paragraph 58, amend to read as follows:

"58. All other officers, except clerks, will receive 10 per cent additional for every five years of continuous service in the grades in which they are serving; but such advance shall never exceed 20 per cent for first officers and first assistant engineers, and 10 per cent for the others."

Paragraph 67, amend to read as follows:

"67. (a) For the purpose of subsisting the officers and men attached to a vessel in service, not more than \$1 a day will be allowed for every officer, and not more than 30 cents a day for every member of the crew, of the complement actually on board.

"(b) In case a vessel is manned, or partly manned, by Chinese, the allowance for subsistence for every steward and cook will be not more than 30 cents a day, and for every other Chinese member of the crew not more than 20 cents a day."

GENERAL ORDER {
No. 57.

NAVY DEPARTMENT,
Washington, December 9, 1907.

The following Executive order is published for the information and guidance of the naval service:

THE WHITE HOUSE,
November 16, 1907.

The extra pay allowed gun pointers in accordance with the Executive order of July 25, 1903, shall be allowed a gun pointer regularly detailed as a gun pointer at a gun of the class at which he qualified only as long as he remains qualified: *Provided*, This order shall be construed as affecting only gun pointers who qualify subsequent to the date of this order.

THEODORE ROOSEVELT.
V. H. METCALF,
Secretary.

GENERAL ORDER {
No. 58.

NAVY DEPARTMENT,
Washington, December 9, 1907.

The following Executive order is published for the information and guidance of the naval service:

THE WHITE HOUSE,
November 28, 1907.

Enlisted men of the Marine Corps regularly detailed as signalmen by the Brigadier-General Commandant shall receive the same compensation in addition to their monthly pay as is now or may hereafter be allowed enlisted men of the Navy under like circumstances: *Provided, however*, That in cases where immediate action is necessary, appointments may be made by the commanding officer of the detachment, who will refer said action to the Brigadier-General Commandant. If said appointment is duly approved, the pay will take effect from the date of the original appointment.

When enlisted men of the Marine Corps are regularly detailed as signalmen by the commanding officer of any vessel of the Navy and serve as least one month in that capacity they shall, during the time of said service, receive the same compensation in addition to their monthly pay as is now or may hereafter be allowed enlisted men of the Navy under like circumstances.

THEODORE ROOSEVELT.
V. H. METCALF,
Secretary.

GENERAL ORDER {
No. 60.

NAVY DEPARTMENT,
Washington, January 9, 1908.

The following instructions regarding the method of awarding prizes for small-arms marksmanship to marines serving on shore is published for the information and guidance of the naval service. Referring to Executive order quoted in Navy Department General Order No. 28, of October 20, 1906, as follows:

Prizes for excellence in gunnery exercises and target practice, both afloat and ashore, in all competitions occurring subsequently to June 30, 1906, shall be awarded and paid to enlisted men of the Marine Corps in like manner, in the same amounts, and under the same conditions as to enlisted men of the Navy.

For the purpose of awarding prizes for small-arms marksmanship to marines serving on shore (where they fire under Army regulations), the record target practice marksman's course, or the record practice special course "A," where authorized (Small-Arms Firing Regulations, U. S. Army), shall be considered the same as the marksman's course prescribed for the Navy.

For the purpose of competition between teams of marines serving on shore, company teams shall be considered the same as gun divisions or ship teams, and regimental, battalion, or post teams shall be considered ship's teams.

When practicable, marines serving afloat will be given an opportunity to carry out the season's small-arms practice prescribed for marines serving on shore in addition to that prescribed for the U. S. Navy, but prizes will not be issued therefor.

The officer commanding or the noncommissioned officer in charge of a marine detachment afloat will forward to the adjutant and inspector, U. S. Marine Corps, a report of each record practice with small arms.

V. H. METCALF,
Secretary.

GENERAL ORDER {
No. 62.

NAVY DEPARTMENT,
Washington, February 7, 1908.

The following Executive order is published for the information and guidance of the service:

On and after March 1, 1908, the classification and pay of mess attendants in the Navy who are citizens of the United States shall be as follows:

	Per month.
Mess attendants, first class.....	\$30.00
Mess attendants, second class.....	25.00
Mess attendants, third class.....	20.00

On and after March 1, 1908, all stewards and cooks in the messman branch who are citizens of the United States and who hold, or may receive, certificates of qualification as stewards or cooks, shall receive \$5 per month additional to the pay of their rating while holding such certificate, such additional pay to be of a permanent character as regular pay.

THEODORE ROOSEVELT.

THE WHITE HOUSE,
January 28, 1908.

On and after March 1, 1908, all mess attendants who are citizens of the United States shall be paid in accordance with the above Executive order.

Certificates of qualification heretofore or hereafter issued by the Bureau of Navigation shall remain in force for a period of two years from their date, unless sooner revoked in the discretion of the commanding officer for cause, and shall be renewed by the commanding officer at the expiration of each two years for a similar term, provided the continued good performance of duty of the steward or cook so warrants.

V. H. METCALF,
Secretary.

[No. 98.]

**TABLE SHOWING PRESENT PAY AND ALLOWANCES OF OFFICERS
OF THE ARMY, MARINE CORPS, AND REVENUE-CUTTER
SERVICE, AND OF OFFICERS OF THE LINE AND THE
MEDICAL AND PAY CORPS OF THE NAVY, ALSO
THAT PROPOSED BY THE DICK-CAPRON BILL**

ACTIVE PAY.

Table showing the present yearly pay and the increase, based on the Dick-Capron pay bill, for the Army, Navy, and Marine Corps.
 [Present pay, first line; increased pay, second line.]

Grade.	Pay proper.	After 5 years' service.	After 10 years' service.	After 15 years' service.	After 20 years' service.
General or Admiral.....	{ \$13,500.00 14,850.00	{ \$13,500.00 14,850.00	{ \$13,500.00 14,850.00	{ \$13,500.00 14,850.00	{ \$13,500.00 14,850.00
Lieutenant-General or Vice-Admiral.....	{ 11,000.00 11,550.00	{ 11,000.00 11,550.00	{ 11,000.00 11,550.00	{ 11,000.00 11,550.00	{ 11,000.00 11,550.00
Major-general or rear-admiral.....	{ 7,500.00 8,250.00	{ 7,500.00 8,250.00	● 7,500.00 8,250.00	{ 7,500.00 8,250.00	{ 7,500.00 8,250.00
Brigadier-general or commodore.....	{ 5,500.00 6,325.00	{ 5,500.00 6,325.00	{ 5,500.00 6,325.00	{ 5,500.00 6,325.00	{ 5,500.00 6,325.00
Colonel or captain.....	{ 3,500.00 4,200.00	{ 3,850.00 4,620.00	{ 3,500.00 4,200.00	{ 4,500.00 5,460.00	{ 4,500.00 5,880.00
Lieutenant-colonel or commander.....	{ 3,000.00 3,600.00	{ 3,300.00 3,960.00	{ 3,600.00 4,320.00	{ 3,900.00 4,680.00	{ 4,000.00 5,040.00
Major or lieutenant-commander.....	{ 2,500.00 3,000.00	{ 2,750.00 3,300.00	{ 3,000.00 3,600.00	{ 3,250.00 3,900.00	{ 3,500.00 4,200.00
Captain, mounted, or lieutenant.....	{ 2,000.00 2,500.00	{ 2,200.00 2,750.00	{ 2,400.00 3,000.00	{ 2,600.00 3,250.00	{ 2,800.00 3,500.00
Captain, not mounted, or lieutenant.....	{ 1,800.00 2,250.00	{ 1,980.00 2,475.00	{ 2,160.00 2,700.00	{ 2,340.00 2,925.00	{ 2,520.00 3,150.00
First lieutenant, mounted, or lieutenant, junior grade.....	{ 1,600.00 2,000.00	{ 1,760.00 2,200.00	{ 1,920.00 2,400.00	{ 2,080.00 2,600.00	{ 2,240.00 2,800.00
First lieutenant, not mounted, or lieutenant, junior grade.....	{ 1,500.00 1,875.00	{ 1,650.00 2,062.50	{ 1,800.00 2,250.00	{ 1,950.00 2,437.50	{ 2,100.00 2,625.00
Second lieutenant, mounted, or ensign.....	{ 1,500.00 1,875.00	{ 1,650.00 2,062.50	{ 1,800.00 2,250.00	{ 1,950.00 2,437.50	{ 2,100.00 2,625.00
Second lieutenant, not mounted, or ensign.....	{ 1,400.00 1,750.00	{ 1,540.00 1,925.00	{ 1,680.00 2,100.00	{ 1,820.00 2,275.00	{ 1,960.00 2,450.00

Table showing allowance of quarters and fuel to officers of the Army and those of corresponding rank in the Navy.

[Expressed in cords of oak wood.]

Rank.	As quarters (rooms).	Cords of wood per month.		Increased allowance from September 1 to April 30.	
		May 1 to August 31 (Tropics, year round).	September 1 to April 30.	Between thirty-sixth and forty-third degrees north latitude, one-fourth.	North of forty-third degree, one-third.
Rear-admiral, first nine.....	9	1½	6	1½	2
Rear-admiral, second nine, or officer of higher rank occupying 8 rooms as quarters.....	8	1½	5½	1½	1½
Captain or officers of higher rank occupying 7 rooms as quarters...	7	1½	5	1½	1½
Commander or officer of higher rank occupying 6 rooms as quarters.....	6	1½	4½	1½	1½
Lieutenant-commander or officer of higher rank occupying 5 rooms as quarters.....	5	1½	4	1	1½
Lieutenant or officer of higher rank occupying 4 rooms as quarters...	4	1½	3½	¾	1½
Lieutenant, junior grade, or officer of higher rank occupying 3 rooms as quarters.....	3	1	3	¾	-----
Ensign or officer of higher rank occupying 2 rooms as quarters.....	2	1	2½	¾	¾
Officer of any rank occupying 1 room as quarters.....	1	1	1½	¾	¾

Each officer (on army pay and allowances) will be allowed, while occupying public quarters or quarters other than public, where gas, acetylene, electricity, or mineral-oil lamps are installed at the expense of the United States, for each room to which his rank entitles him, for the period between September 1 and April 30, 1,500 cubic feet of gas, or 150 cubic feet of acetylene, of 20,000 watt-hours of electric current, or 4 gallons of mineral oil per month; and from May 1 to August 31, 900 cubic feet of gas, or 90 cubic feet of acetylene, or 12,000 watt-hours of electric current, or 3 gallons of mineral oil per month for each room to which entitled, which allowances may be considered accumulative within a fiscal year, provided that the accumulated allowances shall at no time be exceeded. Where an officer occupies quarters other than public, the lighting of which is measured by separate meter readings, settlement will be made by the Government with the owner or authorized agent of the quarters, or agent of the company supplying the light, for the actual quantity of gas, acetylene, or electric current supplied. Where an officer occupies quarters other than public, which are lighted by gas, acetylene, or electricity, and the quantity supplied is not measured by separate meter readings, settlement will be made by the Government with the owner or authorized agent for light for the number of rooms to which the rank of the officer entitles him, in accordance with the prescribed allowance. An officer occupying as quarters a number of rooms less than his authorized allowance will be entitled to mineral oil for such number of rooms only as he actually occupies. (Art. 1241 [1-b, c, d, e], N. R.)

At stations where light is furnished from a Government plant, the charge for an excess used over the prescribed allowance will be the actual cost of manufacture in the case of electricity or gas, or at the actual cost of mineral oil. If the prescribed allowance is exceeded, payment for such excess will be immediately deposited with the yard paymaster through whom the light is furnished. (Art. 1241 [1-f] N. R.)

The approximate equivalents of soft wood and coal, in terms of oak wood, are as follows:

Wood.		Coal.	Gas.	Oil.
Hard.	Soft.	Anthracite.		
Stick or sawed, as required.	Stick or sawed, as required.	Any size.	Bituminous.	Cubic feet. Gallons.
Cord.	Cords.	Pounds.	Pounds.	
1	1½	1,700	2,100	6,000 40

A reasonable amount of an officer's allowance of fuel may be purchased in kindling wood, which will be sold on the basis of its equivalent in oak wood.

Fuel may be furnished to officers of the Marine Corps on the active list by the Quartermaster's Department.

QUARTERS FOR OFFICERS.

Officers of the Army and all officers of corresponding rank in the Marine Corps, Revenue-Cutter Service, and those of the Navy who are on army pay and allowances receive quarters, heat, and light.

When *not* provided with quarters in kind they are paid for quarters as follows, viz:

Rank.	Number of rooms at \$12 per month.	Amount per month.	Amount per annum.
Major-general or rear-admiral, first nine.....	9	\$108.00	\$1,296.00
Brigadier-general or rear-admiral, second nine.....	8	96.00	1,152.00
Colonels or captains.....	7	84.00	1,008.00
Lieutenant-colonels or commanders.....	6	72.00	864.00
Majors or lieutenant-commanders.....	5	60.00	720.00
Captains or lieutenants.....	4	48.00	576.00
First lieutenants or lieutenants, junior grade.....	3	36.00	432.00
Second lieutenants or ensigns.....	2	24.00	288.00
Officers of any rank occupying 1 room as quarters.....	1	12.00	144.00

Heat and light for the authorized number of rooms is furnished in kind, in accordance with the allowance table. When the quantities stated are exceeded, the officers pay for the excess at cost price to the Government.

HEAT AND LIGHT FOR OFFICERS.

Officers of the Army and all officers of corresponding rank in the Marine Corps, Revenue-Cutter Service, and those of the Navy now on army pay receive heat and light as per accompanying table, which is estimated at following values:

Rank.	Number of rooms.	Amount per month.		Amount per annum.
		May 1 to August 31.	September 1 to April 30.	
Major-general or rear-admiral, first nine....	9	\$12.48	\$40.80	\$376.32
Brigadier-general or rear-admiral, second nine.....	8	11.76	37.10	343.84
Colonels or captains.....	7	11.04	33.40	311.36
Lieutenant-colonels or commanders.....	6	10.32	29.70	278.88
Majors or lieutenant-commanders.....	5	9.60	26.00	246.40
Captains or lieutenants.....	4	8.88	22.30	213.92
First lieutenants or lieutenants (junior grade).....	3	6.16	18.60	173.44
Second lieutenants or ensigns.....	2	5.44	14.90	140.96
Officers of any rank occupying 1 room.....	1	4.72	7.45	78.48

NOTE.—Naval constructors, professors of mathematics, civil engineers, and warrant officers are not now entitled to the above allowances.

RETIRED PAY.

Table showing the present yearly retired pay and the increase, based on the *Dick-Caynon pay bill*, for the *Army, Navy, and Marine Corps*.
[Present pay, first line; increased pay, second line. No allowances for officers on retired list.]

Grade.	Pay of grade.	After 5 years' service.	After 10 years' service.	After 15 years' service.	After 20 years' service.
General or Admiral.....	{ \$10, 125.00 11, 137.50 }	{ \$10, 125.00 11, 137.50 }	{ \$10, 125.00 11, 137.50 }	{ \$10, 125.00 11, 137.50 }	{ \$10, 125.00 11, 137.50 }
Lieutenant-General or Vice-Admiral.....	{ 8, 250.00 9, 075.00 }	{ 8, 250.00 9, 075.00 }	{ 8, 250.00 9, 075.00 }	{ 8, 250.00 9, 075.00 }	{ 8, 250.00 9, 075.00 }
Major-general or rear-admiral.....	{ 5, 625.00 6, 468.75 }	{ 5, 625.00 6, 468.75 }	{ 5, 625.00 6, 468.75 }	{ 5, 625.00 6, 468.75 }	{ 5, 625.00 6, 468.75 }
Brigadier-general or commodore.....	{ 4, 125.00 4, 743.75 }	{ 4, 125.00 4, 743.75 }	{ 4, 125.00 4, 743.75 }	{ 4, 125.00 4, 743.75 }	{ 4, 125.00 4, 743.75 }
Colonel or captain.....	{ 2, 625.00 3, 150.00 }	{ 2, 887.50 3, 465.00 }	{ 3, 150.00 3, 780.00 }	{ 3, 375.00 4, 095.00 }	{ 3, 375.00 4, 410.00 }
Lieutenant-colonel or commander.....	{ 2, 250.00 2, 700.00 }	{ 2, 475.00 2, 970.00 }	{ 2, 700.00 3, 240.00 }	{ 2, 925.00 3, 510.00 }	{ 3, 000.00 3, 780.00 }
Major or lieutenant-commander.....	{ 1, 875.00 2, 250.00 }	{ 2, 062.50 2, 475.00 }	{ 2, 250.00 2, 700.00 }	{ 2, 437.50 2, 925.00 }	{ 2, 625.00 3, 150.00 }
Captain, mounted, or lieutenant.....	{ 1, 500.00 1, 875.00 }	{ 1, 650.00 2, 062.50 }	{ 1, 800.00 2, 250.00 }	{ 1, 950.00 2, 437.50 }	{ 2, 100.00 2, 625.00 }
Captain, not mounted, or lieutenant.....	{ 1, 350.00 1, 687.50 }	{ 1, 485.00 1, 856.25 }	{ 1, 620.00 2, 025.00 }	{ 1, 755.00 2, 193.75 }	{ 1, 890.00 2, 362.50 }
First lieutenant, mounted, or lieutenant, junior grade.....	{ 1, 200.00 1, 500.00 }	{ 1, 320.00 1, 650.00 }	{ 1, 440.00 1, 800.00 }	{ 1, 560.00 1, 950.00 }	{ 1, 680.00 2, 100.00 }
First lieutenant, not mounted, or lieutenant, junior grade.....	{ 1, 125.00 1, 406.25 }	{ 1, 237.50 1, 546.87 }	{ 1, 350.00 1, 687.50 }	{ 1, 462.50 1, 828.12 }	{ 1, 575.00 1, 968.75 }
Second lieutenant, mounted, or ensign.....	{ 1, 125.00 1, 406.25 }	{ 1, 237.50 1, 546.87 }	{ 1, 350.00 1, 687.50 }	{ 1, 462.50 1, 828.12 }	{ 1, 575.00 1, 968.75 }
Second lieutenant, not mounted, or ensign.....	{ 1, 050.00 1, 312.50 }	{ 1, 155.00 1, 443.75 }	{ 1, 260.00 1, 575.00 }	{ 1, 365.00 1, 706.25 }	{ 1, 470.00 1, 837.50 }

INEQUALITIES OF THE PRESENT NAVY PAY.

A lieutenant at sea after five years from date of commission as such receives old navy pay, which is \$2,600 per annum, while the highest army pay for lieutenant is \$2,520. On shore his army pay would be \$2,520, and his navy pay \$2,200. On leave his old navy pay would be \$1,800, while his army pay under like conditions is \$2,520. Consequently, this officer would take at sea old navy pay and on shore duty army pay. On leave or waiting orders he would take army pay up to the limit of leave allowed (thirty days in each year). For leave in excess of thirty days per annum he would take old navy pay, \$1,800, as army pay in excess of thirty days' leave each year is \$1,260 per annum.

This same rule applies to all paymasters with the rank of lieutenant above No. 46 in the list of paymasters in the January Register of Commissioned and Warrant Officers, 1908.

The Medical Corps is now practically all on army pay, as all surgeons have the rank of lieutenant-commander, while the passed assistant and assistant surgeons have all been commissioned since July 1, 1899, and started on army pay when they entered.

Medical and pay inspectors who rank as commanders receive \$4,400 at sea, while commanders in the line can under the present law receive only \$4,000; but any officer of the line, no matter what his rank, if ordered as fleet engineer receives \$4,400, which is more than the commanding officers not above the rank of commanders receive.

Warrant officers after twelve years from date of appointment, with less than fifteen years accumulated service, upon promotion to chief warrant officers, receive a reduction of \$120 per annum, as the pay of the warrant officer is \$1,800 and that of the chief warrant officer is \$1,680 per annum for corresponding length of service.

The proposed bill will wipe out all these inequalities and put everyone on the same footing as to pay and allowances.

[No. 99.]

Navy Department,
Washington, March 18, 1908.

**RECOMMENDATION OF THE SECRETARY OF THE NAVY ON
H. R. 14384, AUTHORIZING AND DIRECTING THE SECRETARY
OF THE NAVY TO PURCHASE A LOT OF LAND ON HAMPTON
ROADS, VIRGINIA—DEPARTMENT LETTER.**

SIR: Your letter of the 13th instant, inclosing, with request for the views and recommendations of the Department thereon, a copy of a bill (H. R. 14384) authorizing and directing the Secretary of the Navy to contract for the purchase of a lot of land on Hampton Roads, Virginia, is received. The land referred to in the bill is a tract known as the Jamestown Exposition grounds, containing about 350 acres, and for its purchase the sum of \$2,500,000, or so much thereof as may be necessary, is proposed to be appropriated.

In response I have the honor to state that the property in question, if acquired by the Government, could be used to advantage for naval purposes. Its location and the climatic conditions make it especially desirable as a site for a training station, for which purpose it could, with an adequate appropriation for maintenance, at once be used, there being structures on the grounds that are available for the accommodation of recruits. The station at Newport is not sufficiently large to house all the recruits under training on the Atlantic coast, and further facilities for the purpose are needed.

While, however, this property could, if the Congress should in its discretion see fit to provide for its acquisition by the United States, be used advantageously by the Navy, the Department does not regard its purchase as necessary to the efficiency of the service, and it is not therefore prepared to recommend the enactment of the proposed measure.

Very respectfully,

V. H. METCALF,
Secretary.

HON. GEO. EDMUND FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives.*

(947)

[No. 100.]

**FOR THE RELIEF OF JOHN A. HENDERSON, ASSISTANT ENGINEER
UNITED STATES NAVY, RETIRED—DEPARTMENT LETTER.**

NAVY DEPARTMENT,
Washington, March 17, 1908.

SIR: Referring to your letter of March 6, 1908, respecting the bill (H. R. 17728) "for the relief of John A. Henderson, assistant engineer, United States Navy, retired," I have the honor to inclose herewith record of the service of Mr. Henderson from the date of his appointment to the Navy, July 3, 1876.

As shown by this record, Assistant Engineer Henderson was placed on the retired list November 20, 1884, on furlough pay, because of incapacity not the result of an incident of the service. This action was taken by authority of section 1454 of the Revised Statutes, providing that in such cases the officer so incapacitated shall be "retired from active service on furlough pay, or wholly retired from service with one year's pay, as the President may determine."

Section 1588 of the Revised Statutes, referred to in the above bill, provides 75 per cent of sea pay for officers who have been retired "after forty-five years' service after reaching the age of sixty years, or who have been or may be retired after forty years' service, upon their own application to the President, or on attaining the age of sixty-two years, or on account of incapacity resulting from long and faithful service, from wounds or injuries received in the line of duty, or from sickness or exposure therein." As Mr. Henderson's total service was less than nine years and he was retired for incapacity not an incident of the service, the Department sees no reason for special legislation increasing his pay and giving him additional back pay for about twenty-four years. In this connection it will be noted that, under the provisions of section 1454 of the Revised Statutes, Assistant Engineer Henderson might have been wholly retired from the service on November 20, 1884, instead of which he has been receiving pay on the retired list since that date.

The passage of the bill in question (H. R. 17728) is not, therefore, recommended.

Very respectfully,

V. H. METCALF,
Secretary.

Hon. GEORGE EDMUND FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives.*

WASHINGTON, D. C., March 12, 1908.

Record of the service of Asst. Engineer John A. Henderson, U. S. Navy, retired.

- 1876, July 3. Appointed an assistant engineer.
- 1877, Feb. 19. To the U. S. S. *Trenton*.
- 1878, Aug. 8. Detached 30th April, and sick leave from July 20.
- 1878, Nov. 15. To the Bureau of Steam Engineering.
- 1879, Aug. 16. Leave six months from 14th instant.
- 1879, Aug. 19. Detached from Bureau of Steam Engineering 14th August.
- 1881, Aug. 31. To the U. S. S. *Tallapoosa*.
- 1882, Mar. 3. Relative rank of master from this date (lieutenant, junior grade).
- 1882, Apr. 7. Detached and granted sick leave.
- 1882, Oct. 7. Wait orders.
- 1883, Aug. 25. To the U. S. S. *Miantonomoh* 1st September.
- 1883, Sept. 15. Detached and to the U. S. S. *Alert* 6th October.
- 1883, Sept. 26. Appear before naval retiring board.
- 1883, Oct. 17. Order to the U. S. S. *Alert* revoked, and wait orders.
- 1883, Dec. 1. Found by retiring board as unfit for duty by reason of partial blindness in right eye, but not incapacitated within the meaning of the law.
- 1884, May 22. To the U. S. S. *Passaic*.
- 1884, July 2. Detached and appear before naval retiring board.
- 1884, Nov. 20. Placed on the retired list, on furlough pay, in accordance with the provisions of section 1454 of the Revised Statutes. Incapacitated by reason of general adynamia which was not the result of an incident of the service.
- 1898, May 21. To the Bureau of Steam Engineering. (Reported 25th May.)
- 1899 Jan. 28. Detached and proceed home. (Detached 30th January, home 10th February.)

[No. 101.]

MONEYS BELONGING TO A DECEASED INMATE OF THE NAVAL HOME TO BE DEPOSITED IN THE TREASURY BY THE GOVERNOR OF THE HOME AS AGENT.

NAVY DEPARTMENT,
Washington, March 17, 1908.

SIR: I have the honor to call attention to the fact that there is in the hands of the pay officer of the Naval Home a sum of money—amounting on November 27, 1907, to \$957.20—which has been gradually accumulating since 1875 from the sale of effects of deceased beneficiaries of the Home, together with such moneys as they had at the time of their death, and for which no claimants have appeared.

As it is not desirable to leave indefinitely in the hands of a disbursing officer moneys of which he can make no legal disposition, the Department suggests to the committee the advisability of legislative action which will meet the present condition and provide for future cases of like character.

In this connection attention is invited to a clause relative to the Government Hospital for the Insane, contained in the act “making appropriations for sundry civil expenses of the Government,” approved June 30, 1906 (34 Stat. L., 730, 731). The draft of a clause along the same general lines, which it is thought would apply to the present case, is inclosed for the consideration of the committee.

Very respectfully,

V. H. METCALF, *Secretary.*

HON. GEORGE EDMUND FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives.*

All moneys belonging to a deceased inmate of the Naval Home or derived from the sale of his personal effects, and which are not claimed by his next of kin, shall be deposited in the Treasury by the governor of the Home as agent, and if any sum so deposited has been or shall hereafter be unclaimed for a period of five years from the death of such inmate it shall be covered into the Treasury: *Provided*, That the governor of the Naval Home is hereby authorized and directed, under such regulations as may be prescribed by the Secretary of the Navy, to make diligent inquiry in every instance after the death of an inmate to ascertain the whereabouts of his next of kin: *And provided further*, That claims may be presented hereunder at any time, and when supported by competent proof in any case more than five years after the death of an inmate shall be certified to Congress for consideration.

[No. 102.]

**"TO PLACE JOHN CROWLEY ON THE RETIRED LIST OF THE
UNITED STATES NAVY"—DEPARTMENT LETTER.**

NAVY DEPARTMENT,
Washington, March 20, 1908.

SIR: In reply to your letter of the 10th instant, requesting the views of the Department with respect to a bill (H. R. 7807) "to place John Crowley on the retired list of the United States Navy," I have the honor to state John Crowley enlisted in the Navy April 11, 1865, and was last discharged June 2, 1897, from the *Vermont*, as chief boatswain's mate—between one and two years prior to the passage of the "personnel act" (March 3, 1899). Crowley also claims service under the name of Patrick Crowley in Company A, First Rhode Island Volunteers, for ninety days in 1861, and as Patrick Crowley on the *Brooklyn*, from 1861 to 1863. The Military Secretary reports that one Patrick Crowley, Company A, First Regiment Rhode Island Infantry, was mustered in May 2, 1861, and mustered out August 2, 1861.

Patrick Crowley enlisted in the Navy August 7, 1861, at Boston, Mass., as an ordinary seaman, for two years; served on the *Ohio*; Washington Navy-Yard; on the *Princeton*; *Brooklyn*; and was discharged from the last-named vessel August 31, 1863.

Actual enlisted service under name of John Crowley aggregates thirty-one years, one month, and seventeen days, and adding double time for war service amounts to thirty-two years, five months, and twenty-seven days. Counting the above Army and Navy services of Patrick Crowley and Patrick Crowley, respectively, during the civil war, and doubling them, the aggregate is thirty-seven years, one month, and nineteen days.

The record of Crowley as an enlisted man of the Navy is a very creditable one, and if the matter of a good record and long service were the only considerations the Department would recommend a favorable report on this bill, regardless of the fact that Crowley was appointed a boatswain in January, 1876, and appointment revoked February 7, 1876, for drunkenness and absence from duty without leave. Attention is invited to the fact, however, that Crowley is at present a beneficiary under section 4756 of the Revised Statutes, and, furthermore, the proposed action would establish an inadvisable precedent.

It is therefore recommended that the bill (H. R. 7807) be not favorably considered.

Very respectfully,

V. H. METCALF,
Secretary.

HON. GEORGE EDMUND FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives.*

[No. 103.]

**TO PLACE LOUIS WEBER, A FIRST-CLASS MUSICIAN, LATE OF
THE MARINE CORPS, ON THE RETIRED LIST—DEPARTMENT
LETTER.**

NAVY DEPARTMENT,
Washington, March 20, 1908.

SIR: In reply to your letter of the 13th instant, requesting the views of the Department with respect to a bill (H. R. 16996) "to place Louis Weber, a first-class musician, late of the Marine Corps, on the retired list," I have the honor to invite attention to the following extract from indorsement by the Commandant of the Marine Corps, dated March 19, 1908:

Louis Weber, late first-class musician, U. S. Marine Corps, served twenty-four years, six months, and twenty-four days in the Marine Corps, and was discharged "upon settlement of accounts" on July 9, 1867, almost forty-one years ago. There is no precedent for placing on the retired list of the Marine Corps a man who has been separated from the service for over forty years, and it would be contrary to existing law to again enlist in the Marine Corps a man over 73 years of age—the age of Louis Weber at the present time, as shown by the records of these headquarters. Furthermore, this office is of the opinion that the granting of the within request would establish a bad precedent and lead to other claims of a like nature.

In this connection this office would state that the within-named man is at present in receipt of two pensions for his service in the Marine Corps, one of \$17 per month for his service of over twenty years in the Corps, and the other, amounting to \$15 per month, for disability contracted during such service. In addition, this office has to state that Weber, if placed on the retired list of the Marine Corps and paid \$67 per month, as contemplated in the attached bill, would receive more pay per month than is now received by a first-class musician of the Marine Corps on the active list.

In view of the foregoing, adverse action on the bill (H. R. 16996) is recommended.

Very respectfully,

V. H. METCALF,
Secretary.

HON. GEORGE EDMUND FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives.*

(955)

[No. 104.]

NAVAL PRISONS—DEPARTMENT LETTER.

NAVY DEPARTMENT,
Washington, March 20, 1908.

SIR: I desire to invite your attention to the deplorable lack of accommodations for the confinement of general court-martial prisoners of the Navy, and to earnestly recommend that immediate relief be given to a condition which so seriously affects the discipline of the service, and that an appropriation be made available to complete the new naval prison at Portsmouth, according to the plans now drawn up, which provide for the accommodation of 900 prisoners.

During the first half of the fiscal year ending June 30, 1908, 900 prisoners were convicted by general court-martial, or at the rate of 1,800 per year, whose terms of confinement vary from six months to three years.

The present accommodations for prisoners are as follows:

	Men.
Boston.....	150
The <i>Southery</i> (prison ship at Portsmouth).....	300
Mare Island.....	52
<i>Nipsic</i> (prison ship at Puget Sound).....	178

A portion of the new naval prison at Portsmouth will be ready for the accommodation of 160 prisoners about April 1.

The last reports from the prisons showed that there were confined at Boston 222 men; at Portsmouth (the *Southery*), 361 men; at Mare Island, 81 men; at Puget Sound, 16 men. (The prison ship at Puget Sound has been in commission but two months.)

Owing to the overcrowded condition of the different prisons, which results in unsanitary conditions, and the effect that it has in the discipline and morals when two men are placed in the same cell, it has become necessary from time to time for the Department to release prisoners who have served half of the time of their confinement and in a great many cases much less than that. This condition, which makes it imperative to discharge prisoners who have committed grave offenses and have served such a small part of their sentence, tends to have a very bad effect on the discipline of the service.

Recently the Department has had to direct that all prisoners be discharged who have served one-third of their sentences.

In view of the above, it is recommended that an appropriation be allowed for the amounts estimated for the fiscal year 1908-9 of the following:

New naval prison, Portsmouth.....	\$250,000
Marine barracks, naval prison.....	130,000
Quarters for commissioned officers.....	15,000
Quarters for junior officers.....	42,000
New naval prison, Norfolk.....	60,000
	<hr/> 497,000

Very respectfully,

V. H. METCALF,
Secretary.

HON. GEORGE EDMUND FOSS,
Chairman Committee on Naval Affairs,
House of Representatives.
(957)

[No. 105.]

COPIES OF LETTERS RECEIVED BY THE DEPARTMENT RELATING TO THE DISCHARGE OF ENLISTED MEN FROM PRISON, IN UNIFORM AND PENNILESS—DEPARTMENT LETTER.

NAVY DEPARTMENT,
Washington, March 18, 1908.

SIR: I transmit herewith, for your information, copies of letters received by the Department relating to the discharge of enlisted men from prison, in uniform and penniless.

The condition which exists at present is one that has long been a source of embarrassment to the Department, but which it has been unable to relieve.

The sentence imposed in most cases by general courts-martial allows for the payment to the prisoner of the sum of \$20 upon his discharge, *provided he has it due him*. In view of the entirely inadequate prison facilities, the Department has been compelled to discharge many men before the term of confinement has half expired; frequently they are in debt to the Government when sent to prison, and as his indebtedness must be worked off before a prisoner can begin to draw pay to his own credit, the length of time which these men remain in prison is not sufficient for their accumulated pay to satisfy their indebtedness to the Government and also to entitle them to the \$20 allotted upon discharge by the sentence of the court.

As a result, many of the men are discharged practically penniless, and as there is at present no provision of law by which they may be furnished civilian apparel, they are released with the clothing they wore when admitted to the prison—in most cases their uniform. This condition of affairs leads to consequent disgrace to the uniform, as is shown by the letters forwarded herewith.

The great importance—not only to the Navy, but to the community at large, as well as to the men themselves—of legislation to remedy this condition is apparent, and in this connection I invite your attention to section 14 of the bill (H. R. 6252) “to promote the administration of justice in the Navy,” which the Department trusts will receive favorable consideration.

The letters referred to, copies of which are inclosed, are as follows:

(a) Letter from commandant, Boston Navy-Yard, dated March 14, 1908.

(b) Letter from Bishop William Lawrence, dated March 14, 1908.

(c) Letter from superintendent, Sailors' Haven, Charlestown, Mass., dated March 13, 1908.

(d) Letter from Hon. E. W. Roberts, with indorsements, dated March 14, 1907, and Department's reply.

There are many other letters of similar import on file in the Department, but it is believed that the ones here sent will suffice for the purpose.

Very respectfully,

V. H. METCALF,
Secretary.

Hon. GEORGE EDMUND FOSS,
Chairman Committee on Naval Affairs,
House of Representatives, Washington, D. C.

(a)

No. 58.]

UNITED STATES NAVY-YARD,
Boston, Mass., March 14, 1908.

SIR: On January 15 I forwarded a letter from the commanding officer of the *Wabash*, with an indorsement, in which certain usages in connection with the discharge of general court-martial prisoners were discussed. The whole letter shows a condition of affairs which must be a cause of solicitude to the Navy Department, as it is to me. As a result of the existing conditions, general court-martial prisoners are sometimes discharged in Boston without money and with Navy uniforms for clothing, and there is much unfavorable comment on the part of civilians, much criticism of the naval authorities here, and much discredit cast upon the uniform of the enlisted man.

Within two or three days I have been interviewed upon this matter by several people—to-day by Bishop Lawrence, of Massachusetts. He was very guarded in what he said; but the impression made by the present state of things is very unfortunate, and the people who are brought directly in contact with these discharged prisoners, who find them in destitute circumstances and hear their stories, show considerable temper in discussing the situation. They also feel that the Government is unloading upon Boston and the vicinity a responsibility which does not belong to them.

Paragraph 8 of the above-mentioned letter from Captain Nazro states that a number of these men have joined the lower criminal class in the city, and several instances have occurred in which they, in company with others of such class, have waylaid enlisted men on their way to and from the navy-yard and robbed them of money and clothing. They have also been begging in uniform about the streets of the city. Instances of this last kind have occurred within a few days.

It appears to me that provision should be made by law, if necessary, and immediately, if possible, to provide all discharged court-martial prisoners with suits of plain clothes, making some rule by which their outside uniform clothes shall be sold, so that they may not appear after discharge in the uniform of the Navy; also that upon discharge they should be supplied with transportation, being put on board a train to take them in the direction of their homes and sufficiently far from Boston to make their return here improbable. In most cases a ticket costing from \$5 to \$10 would take them from Boston home.

As a number of rulings have been made by the Treasury Department which prevent the execution of the sentences of court-martial in regard to the allotment of \$3 per month for prison expenses, also that ordinary provision giving them \$20 upon discharge, it might be advisable to provide the prisons with a printed statement showing precisely what court-martial prisoners under different conditions may expect. Much of the unfavorable criticism now heard results from discharged prisoners showing the terms of their sentences, with a statement that they have not received the money to which they are entitled, and they leave the prison with a distinct suspicion that they have not been justly treated and make statements to this effect after leaving the navy-yard.

Very respectfully,

WM. SWIFT,

Rear-Admiral, U. S. Navy, Commandant.

THE SECRETARY OF THE NAVY,
Washington, D. C.

(b)

DIocese OF MASSACHUSETTS,
OFFICE OF THE BISHOP,
1 Joy Street, Boston, March 14, 1908.

The SECRETARY OF THE NAVY,
Washington, D. C.

MY DEAR SIR: I take the liberty of forwarding to you the inclosed letter, which has come to me from the superintendent of our sailors' work in Charlestown. As you will see, he is accustomed to speak in rather lively language. It is, however, I understand, a fact that men in the uniform of the United States Navy are discharged from the prison without money with which to get away from the city. There is this evil, too: That they naturally group together and influence each other badly. If, in addition to supplying them with citizens' clothes, arrangements could be made for distributing them separately through the country, it would be an advantage to the service as well as to the men.

No doubt this subject has come before you before, but I take the liberty of sending this letter on with this line from myself, which you need not take the trouble to acknowledge.

I remain, yours, respectfully,

WM. LAWRENCE.

(P. O. address 122 Commonwealth avenue.)

(c)

SAILORS' HAVEN, 46 WATER STREET,
Charlestown, Mass., March 13, 1908.

Rt. Rev. WILLIAM LAWRENCE, D. D.,
Boston, Mass.

MY DEAR BISHOP LAWRENCE: During the past few days several enlisted men of the Navy have been discharged from the prison in the Charlestown Navy-Yard entirely destitute of money. These men are wearing the uniform of the Navy. Some of them have come to me to beg for a night's lodging, and it does seem to me that there is something radically wrong. Court-martial sentences read that these prisoners are to receive \$20 from the Government at the expiration of their confinement. I would beg of you to find out from Washington what becomes of this \$20 that these prisoners are supposed to have. I am told that it is used for prison expenses, such as writing material, towels, etc. If the sentence reads that they are to have \$20 at the expiration of their term, who has the authority to advance this money to the men so that when they are discharged they are so absolutely destitute. Again I would ask that something be done so that these men when discharged from the naval prison shall be given a suit of civilian's clothes. It is a disgrace to the uniform to have men thrown on the street begging assistance, wearing the Government uniform. I am now helping some of these men, sheltering and feeding them, and I believe that were you to take it up with the Secretary of the Navy something would be done for them.

I am also informed that the citizens are not allowed to purchase the uniform from these ex-naval prisoners, and therefore the men have no resource whatever in getting a new start. A man discharged from

the State prison is treated with more consideration than a man from the naval prison. You can readily see how handicapped these men are, walking the streets in the United States naval uniform, which in itself prevents them from obtaining employment to earn enough to get the uniform off their backs.

I do beg of you, sir, to use your influence in finding out what can be done in helping these men.

Respectfully, yours,

STANTON H. KING.

(d)

COMMITTEE ON NAVAL AFFAIRS,
HOUSE OF REPRESENTATIVES,
Washington, D. C., March 14, 1907.

DEAR SIR: I am to-day in receipt of the inclosed letter, which I am forwarding to you for your consideration.

I would respectfully request that you have this matter looked into and send me your reply, inclosing the letter from Mr. Lewis at that time.

Thanking you for your attention to this matter, I am,
Very truly, yours,

ERNEST W. ROBERTS.

Hon. V. H. METCALF,
Secretary of the Navy.

[First indorsement.]

NAVY DEPARTMENT,
OFFICE OF THE JUDGE-ADVOCATE-GENERAL,
March 16, 1907.

Respectfully referred to the commandant, navy-yard, Boston, Mass., requesting a full statement of the matter referred to within.
By direction of the Secretary.

S. W. B. DIEHL,
Judge-Advocate-General.

[Second indorsement.]

NAVY-YARD, BOSTON, MASS., *March 19, 1907.*

Respectfully forwarded to the commanding officer of the U. S. S. *Wabash* for statement required by the first indorsement.

A. S. SNOW,
Rear-Admiral, U. S. Navy,
Commandant Navy-Yard and Station.

[Third indorsement.]

U. S. S. *WABASH*,
Navy-Yard, Boston, Mass., March 20, 1907.

Respectfully referred to the paymaster, through the executive officer, who will please comply with the first indorsement; citing specific cases.

JOHN M. HAWLEY,
Captain, U. S. Navy, Commanding.

[Fourth indorsement.]

U. S. R. S. WABASH,
Navy-Yard, Boston, Mass., March 23, 1907.

Respectfully returned to the commanding officer.

In the nine months that I have served as pay officer of this vessel there have been many cases of men being discharged without money, especially men discharged from the navy prison. This condition arises from the fact that *a pay officer can not make any payments to a person who is in debt to the Government.*

The following are recent cases of men having been discharged without money:

March 5, 1907. Lee Estes, overpaid.

March 11, 1907. F. Dawson, overpaid.

March 12, 1907. D. Russell, overpaid.

March 12, 1907. H. W. Groom, no balance.

The man *Groom applied to the State Board of Charities on March 12, 1907, for transportation and aid, as was reported by the superintendent's letter of March 13.*

The sentence, inasmuch as relates to pay, reads as follows:

To forfeit all pay and allowance that may become due him during said confinement, excepting, first, the sum of \$3 per month for necessary prison expenses; second, a sum of \$20 to be paid him when discharged pursuant to his sentence.

The above-named exemptions of pay from forfeiture were applied to pay off Groom's indebtedness to the Government.

While it is no doubt the evident intention of the naval courts-martial to make an allowance of \$20 to be paid upon discharge, by decision of the Comptroller of the Treasury and in accordance with memoranda for the information and guidance of the Pay Corps commanding officer, etc., No. 36, page 316, paragraph 2, which reads:

There is no authority to make any payment to a prisoner who is in debt to the Government, and the usual allowance for prison expenses, as stated in the terms of the sentence, can not be paid until such times as the prisoner's account is free from debt and the court-martial award has accrued,

the intent of the sentence of the court-martial is annulled, and the man is discharged without money.

Relative to the question of transportation of discharged prisoners to their respective homes, I would state that there is no provision made by the Government for any such allowance.

J. W. MORSE,
Paymaster, U. S. Navy.

[Fifth indorsement.]

U. S. REVENUE STEAMER WABASH,
Navy-Yard, Boston, Mass., March 23, 1907.

Respectfully returned to the Department; attention invited to fourth indorsement.

JOHN M. HAWLEY,
Captain, U. S. Navy, Commanding.

[Sixth indorsement.]

NAVY-YARD, BOSTON, MASS., *March 23, 1907.*

Respectfully forwarded to the Secretary of the Navy; attention invited to the fourth indorsement.

A. S. SNOW,
*Rear-Admiral, U. S. Navy,
Commandant, Navy-Yard and Station.*

[Seventh indorsement.]

DEPARTMENT OF THE NAVY,
BUREAU OF NAVIGATION,
March 26, 1907.

Forwarded to the Secretary of the Navy (Judge-Advocate-General).

G. A. CONVERSE,
*Chief of Bureau.*NAVY DEPARTMENT,
Washington, April 3, 1907.

DEAR SIR: In reply to your communication of the 14th ultimo with inclosure, herewith returned, in reference to the discharge of enlisted men at Charlestown, Mass., without sufficient funds, and their applications to the State board of charity for assistance, I have to state that the conditions at Charlestown referred to have been investigated and found to be as represented by the superintendent of the State board of charity at Charlestown,

The Department has previously recognized these conditions as existing in the neighborhood of all the naval prisons and has submitted proposed legislation to Congress to remove the unfortunate conditions. There is inclosed herewith pages 9 and 10 of the report of the Judge-Advocate-General of the Navy for 1904, which refers to this subject. The recommendation for legislation therein made was renewed in 1905, and again in 1906, but up to the present time Congress has failed to enact any law to relieve the conditions referred to.

When a naval prisoner is discharged, there is no fund other than pay due him from which any sum of money can be given him.

It is hoped that Congress will, at an early date, enact the legislation proposed.

Very respectfully,

V. H. METCALF, *Secretary.*Hon. ERNEST W. ROBERTS,
Washington, D. C.

[No. 106.]

TO PURCHASE THREE NEW STEAM COLLIERIES—DEPARTMENT
LETTER.

NAVY DEPARTMENT,
Washington, January 8, 1908.

SIR: Referring to your communication of the 28th ultimo, requesting to be furnished, for the use of the Committee on Naval Affairs, in the consideration of the bill (H. R. 7578) "to purchase three new steam colliers," with the views and recommendations of the Department thereon, I have the honor to inform you that the bill was referred to the board on construction for recommendation, and the same has been returned with the following report, viz:

The board recommends that the accompanying bill be modified in the following respects:

In line 3, after "authorized," insert "in his discretion."

Line 5, after "of," insert "about."

Line 6, eliminate "two hundred."

Line 7, eliminate "and nine" and "one hundred and seventy."

Line 8, eliminate the words "six" and "forty-five cents."

The first section will then read as follows:

"Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Secretary of the Navy is hereby authorized, and in his discretion, to purchase three new steam colliers of American registry, ready for service, having a cargo-carrying capacity of about seven thousand tons dead weight each, at a cost not exceeding six hundred thousand dollars each."

It is also recommended that section 2 be modified as follows:

Line 9, eliminate "and."

Line 10, eliminate the words "twenty-seven" and "five hundred and twenty-nine."

Line 11, eliminate the words "and thirty-five cents."

Section 2 will then read as follows:

"SEC. 2. That the sum of one million eight hundred thousand dollars is hereby appropriated, out of any money in the Treasury not otherwise appropriated, for the purchase of the colliers above authorized."

The recommendations of the board on construction are approved by the Department, and as thus modified the bill is recommended to the favorable consideration of the committee.

A draft of the bill with the changes recommended is inclosed herewith.

Very respectfully,

V. H. METCALF,
Secretary.

HON. GEORGE EDMUND FOSS,
Chairman Committee on Naval Affairs,
House of Representatives.

A BILL To purchase three new steam colliers.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Secretary of the Navy is hereby authorized, in his discretion, to purchase three new steam colliers of American registry, ready for service, having a cargo-carrying capacity of about seven thousand tons dead weight each, at a cost not exceeding six hundred thousand dollars each.

SEC. 2. That the sum of one million eight hundred thousand dollars is hereby appropriated, out of any money in the Treasury not otherwise appropriated, for the purchase of the colliers above authorized.

[No. 107.]

**TO PROVIDE FOR THE RETIREMENT OF CERTAIN OFFICERS OF
THE NAVY—DEPARTMENT LETTER.**

NAVY DEPARTMENT,
Washington, March 19, 1908.

SIR: Referring to the attached bill (H. R. 19313), introduced in the House of Representatives on the 14th instant by Mr. Foster, which provides for the retirement of certain officers of the navy, I have the honor to recommend your favorable consideration thereof.

The officers who would be affected by the proposed legislation, as is stated in the bill, are those who were advanced for eminent and conspicuous conduct in battle, or extraordinary heroism, and who, of course, owing to their distinguished service to the country, should be given every consideration instead of being discriminated against as is the case at present. The officers advanced on account of such service were made additional numbers in order that their advancement would not interfere with the promotion of those officers over whom they were advanced. They received no benefits whatever by being made additional numbers in their grades.

At present an officer who is an additional number in grade can not voluntarily retire under the provisions of section 8 of the navy personnel act, for the reason that such retirement would not create a vacancy in his grade.

There are 41 officers, most of them older officers, who are additional numbers in grade, who might be affected by the proposed legislation, but it is likely that only a very few of them would desire, or be able under the law, to avail themselves of the privilege of retirement, and those who did would most likely be the older officers in the higher grades of the Navy.

This legislation will not increase the appropriation "pay of the Navy," but would reduce it one-fourth of the pay of each officer to retire, as no appointment would be made on the active list of the Navy to take the place of the officer retired, such retirement not making a vacancy.

It is recommended that the bill in question be amended by inserting, after the word "one," in line 10, the words "or the act of Congress approved June 16, 1906," as indicated on the attached bill. The act of Congress approved March 3, 1901, made all officers who were advanced for service during the war with Spain additional numbers in grade, and the act of June 16, 1906, made all other officers who were advanced for eminent and conspicuous conduct in battle, or extraordinary heroism, additional numbers in their grades. Both classes should, of course, be given the same consideration.

The Department does not believe that those officers who have rendered specially meritorious service should be discriminated against

in the matter of retirement, and recommends the proposed legislation in order to relieve them of this disability.

Very respectfully,

V. H. METCALF,
Secretary.

Hon. GEORGE E. FOSS,
*Chairman House Committee on Naval Affairs,
House of Representatives, Washington, D. C.*

[H. R. 16313, Sixtieth Congress, first session.]

A BILL Providing for the retirement of certain officers of the Navy,

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That any officer on the active list of the line of the Navy who has been advanced in numbers for eminent and conspicuous conduct in battle or extraordinary heroism, in accordance with the provisions of section fifteen hundred and six of the Revised Statutes, and who has made an additional number in grade by operation of a provision contained in the naval appropriation act approved March third, nineteen hundred and one, or the act of Congress approved June sixteenth, nineteen hundred and six, shall have the same privilege of voluntary retirement under section eight of the act of Congress approved March third, eighteen hundred and ninety nine, as is now allowed by law to other officers on the active list of the line: *Provided* That the number of officers who may retire under the provisions of this act, for any one year, shall not exceed the number of other officers to retire, for the same year, under the provision of the act of March third, eighteen hundred and ninety-nine.

[No. 108.]

**TO TRANSFER FROM THE NAVY-YARD, BOSTON, MASS., TO
NAVY-YARD, PORTSMOUTH, N. H., THE 100-TON SHEARS—
DEPARTMENT LETTER.**

NAVY DEPARTMENT,
Washington, March 20, 1908.

SIR: The Department desires to bring to the attention of your committee the desirability of having transferred from the navy-yard, Boston, Mass., to the navy-yard, Portsmouth, N. H., the 100-ton shears constructed under authority contained in the act of March 2, 1891 (26 Stat. L., 803).

When pier No. 1 was constructed at the navy-yard it was necessary to take down the shears owing to the fact that they were cut off from the water front by the construction of the pier. It was then found desirable to make certain improvements and repairs, and for this purpose Congress appropriated \$20,000 by the acts approved July 1, 1902, and March 3, 1903. Contract was made for the improvement and erection of the shears on pier No. 1, but after the work of improvement was nearly completed and the erection was about to be made, the Department decided that the location was too remote from the working part of the yard, and directed that the shears be not erected at that point but that an appropriation be asked for erection on pier No. 6. It being necessary to strengthen pier No. 6 before the heavy weights handled by the shears could be borne by it, estimates were submitted under the head of "Public works, Bureau of Yards and Docks," for the fiscal years 1906, 1907, and 1908, but no appropriation was made by Congress.

An estimate was not submitted for the present bill owing to the fact that floating derricks have been found more useful than stationary shears, especially at yards where piers are built out at right angles with the water front. However, at the navy-yard, Portsmouth, which has no piers, it is believed that the shears would be very useful, and as they can be transported and erected at that yard for a comparatively small amount, the Department is of opinion that it would be an economical expenditure to authorize such transfer.

A draft of a proposed amendment to the naval bill is accordingly submitted for consideration by the committee. The unexpended balances referred to amount to \$3,647.80.

Respectfully,

V. H. METCALF, *Secretary.*

Hon. GEORGE E. FOSS, M. C.,
*Chairman Committee on Naval Affairs,
House of Representatives.*

Proposed amendment, naval appropriation bill.

On page 87, draft No. 1, naval appropriation bill, after the semicolon in the tenth line, insert the following:

"The Secretary of the Navy is hereby authorized to transfer from the navy-yard, Boston, Massachusetts, to, and erect at the navy-yard, Portsmouth, New Hampshire, the one hundred ton shears improved and repaired under the acts approved July first, nineteen hundred and two, and March third, nineteen hundred and three, and the unexpended balances of the appropriations made by said acts for the improvement of said shears are hereby reappropriated, and the further sum of two thousand four hundred dollars is hereby appropriated for this purpose."

[No. 109.]

TO CORRECT THE NAVAL RECORD OF EDWARD T. LINCOLN—
DEPARTMENT LETTER.

NAVY DEPARTMENT,
Washington, March 27, 1908.

SIR: In reply to your inquiry of the 26th instant with reference to a bill (H. R. 8615) "to correct the naval record of Edward T. Lincoln," I have the honor to invite attention to the record in this case:

Lincoln was appointed acting master's mate September 3, 1863; served on board the U. S. S. *Peri*; on September 6, 1864, he was "put under arrest by order of captain;" on November 17, 1864, he forwarded, through Rear-Admiral S. P. Lee, a request for a trial by court-martial; said request was forwarded with recommendation by Lieutenant-Commander Foster, concurred in by Rear-Admiral Lee, that Mr. Lincoln be discharged from the service because charges had been filed against him "for conduct prejudicial to good discipline in borrowing money from shipped men of the U. S. S. *Peri*." On November 28, 1864, the Department dismissed him from the service.

The Department, under date of January 4, 1906, wrote Mr. Lincoln:

It appears from the records that the matter of the dismissal of Acting Master's Mate Edward T. Lincoln received due consideration by the Department at the time when all the facts could be ascertained. The case therefore falls within the well-settled rule respecting matters finally adjusted and determined, and to reopen it would be contrary to this rule and to the practice of the Department, which rests upon sound reasons—the difficulty of arriving at the facts after the lapse of so many years and the establishment of a precedent which would lead to endless investigation of other cases. Under the circumstances the Department can not change its records except by special legislation of Congress.

As the propriety of such legislation is believed to be a question for determination by Congress, the Department submits the record without recommendation.

Very respectfully,

V. H. METCALF,
Secretary.

Hon. GEORGE EDMUND FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives.*

[No. 110.]

CONTINGENT, BUREAU OF MEDICINE AND SURGERY—
DEPARTMENT LETTER.

DEPARTMENT OF THE NAVY,
BUREAU OF MEDICINE AND SURGERY,
Washington, D. C., February 10, 1908.

SIR: In view of a decision made by the Comptroller on the 7th instant, and just received in the Bureau this morning, I have the honor to request a slight change in the wording of the appropriation "Contingent, Bureau of Medicine and Surgery," in the bill now before your committee, as follows: "Page 143, lines 7 and 8, after the word "instruction," substitute "purchase and repairs of wagons, *automobiles*, and harness, and purchase of and feed for horses and cows *other than for hospitals*." The words in italics are the words added.

In the adverse decision rendered on a requisition for an automobile for use at the Naval Medical School Hospital the Comptroller held that by reason of the specific mention in an appropriation (contingent) the naval hospital fund is not available for the purchase of an automobile. He further holds that in the appropriation (contingent) the specific appropriation for "wagons" is not available for the purchase of vehicles other than horse-drawn vehicles.

The Bureau desires that the substitution of the proposed clause shall limit the scope of the appropriation so that vehicles of all kinds and horses for hospital use may not be purchased from that appropriation. The excluding words "other than for hospitals" will make the appropriation unavailable for hospital purposes and will enable us to make such purchases from the naval hospital fund. This fund, you will doubtless remember, is a trust fund, not appropriated by Congress, which has its sources of revenue, such as taxes, fines, forfeitures, etc., within the naval service.

This decision of the Comptroller will, unless corrected by legislation as herein proposed, effect a material change in the accounting of the Bureau and the office of the Auditor, and will make necessary a very material increase in the appropriation "contingent," because these expenses and others of like nature that have heretofore been paid out of the naval hospital fund will in future be charged against "contingent."

This communication is forwarded to you with the approval of the Department.

Very truly, yours,

P. M. RIXEY,
Surgeon-General, United States Navy.

Hon. GEORGE EDMUND FOSS, M. C.,
*Chairman Committee on Naval Affairs,
House of Representatives.*



[No. 111.]

**COMMUTATION OF QUARTERS, UNITED STATES MARINE CORPS—
DEPARTMENT LETTER.**

**HEADQUARTERS U. S. MARINE CORPS,
QUARTERMASTER'S OFFICE,
Washington, D. C., February 7, 1908.**

SIR: In compliance with your suggestion I submit the following information concerning the changes in the language which I recommended to your committee in the estimates of the quartermaster's department, United States Marine Corps, for the next fiscal year; also in my hearing before your committee. As you know, in the army appropriation act approved March 2, 1907, the number of rooms to which officers of all grades are entitled was increased except in the case of second lieutenants. The practice in the Army is to pay officers commutation of quarters at \$12 per room per month, and no more. Under a recent decision of the Comptroller of the Treasury this office was instructed hereafter in "hiring" quarters for officers there must be a regular contract entered into between the quartermaster's department and the owner of the rooms hired. The amount to be paid for hire of quarters is not limited by law or regulations. The amount so expended would be that specified in the proposal of the lowest acceptable bidder. This might be \$20 per room per month. The change in the language of the appropriation from "hire" to "commutation" of quarters as recommended is, therefore, in the interest of economy, because commutation of quarters for officers could not exceed \$12 per room per month.

Another and important point is, that section 1612, Revised Statutes, provides that officers of the Marine Corps shall be entitled to the same pay and allowances of officers of like grade in the Army. Officers of the Army under the act approved March 2, 1907, receive a fixed allowance for quarters. I am of the opinion that the law relating to the Marine Corps should be identical with that of the Army. Generally the change recommended is a wise one, in the interest of economy, and consistent with the new army law. In addition much clerical work and "red tape" imposed upon this office by the decision of the Comptroller would be avoided. Should this office be required to make contracts in each instance when quarters are hired for officers the services of two additional clerks would be absolutely necessary.

Finally, and very important, the change in the language of the bill which I suggested was made upon the advice of the Comptroller of the Treasury, and the Comptroller is now holding blank forms and instructions which he wants us to use and follow pending the decision of Congress.

Very truly, yours,

F. L. DENNY.

Hon. G. E. Foss,
*Chairman Committee on Naval Affairs,
House of Representatives.*

*Memorandum of conversation between chief clerk, quartermaster's office,
and the office of the Comptroller of the Treasury.*

HEADQUARTERS U. S. MARINE CORPS,
QUARTERMASTER'S OFFICE,
Washington, D. C., February 4, 1908.

On the date mentioned the chief clerk of the quartermaster's office, by direction of the quartermaster, visited the office of the Comptroller of the Treasury and ascertained, formally and definitely, the views of that office concerning the proposal of the quartermaster as contained in his estimates to Congress for the next fiscal year of the advisability or necessity of changing the title of the appropriation "hire of quarters" to "commutation of quarters." The chief clerk of the quartermaster's office was informed that there should either be a change in the practice of this office under which quarters are hired for officers or a change in the law so that officers would obtain commutation of quarters instead of hire of quarters. A change in the law was recommended instead of a change in practice for the following reasons: To change the practice would involve much additional clerical labor, requiring the services of two additional clerks, because hereafter the Comptroller would insist that in each instance when quarters are hired for an officer the regular legal process should be followed, i. e., that invitations for quarters should be invited, proposals therefor received and opened, and an award made to the lowest satisfactory bidder. Under this process the cost of quarters would not be limited to \$12 per room per month for officers of all grades, but would be that specified in the lowest satisfactory bid received therefor. Regular contracts would have to be entered into and all other requirements of the law relating to contracts observed. All this means considerable clerical labor, which in every case in the change of stations of officers where quarters are hired would involve the same legal and clerical steps.

2. If, however, the law was changed and commutation of quarters was authorized, the system would be changed, simplified, and made specific and definite. That is to say, whenever an officer was ordered to a station he would necessarily be entitled only to the number of rooms per month specified in the army appropriation act approved March 2, 1907, and under no circumstances could he get additional rooms.

[Extract from act.]

	Rooms.		Rooms.
Second lieutenants.....	2	Colonels.....	7
First lieutenants.....	3	Brigadier-generals.....	8
Captains.....	4	Major-generals.....	9
Majors.....	5	Lieutenant-generals.....	10
Lieutenant-colonels.....	6		

Under the act approved June 23, 1879 (Sup. R. S., vol. 1, 2 E., 1874-1891, p. 267), an officer is entitled to receive \$12 per month for each room the law authorizes him to have.

(Extract from act: and that the rate of commutation shall hereafter be twelve dollars per room per month for officers' quarters, in lieu of ten dollars, as now provided by law.)

TREASURY DEPARTMENT,
COMPTROLLER OF THE TREASURY,
Washington, January 27, 1908.

The SECRETARY OF THE NAVY.

SIR: By your reference of the 13th instant I have received for approval a form of voucher for hire of quarters for use in the quartermaster's department of the United States Marine Corps.

I have changed the form which reads "at twelve dollars per month per room" so as to leave the rate to be filled in according to the terms of the contract in each case. It can not be assumed that the quarters that may be hired will necessarily cost just \$12 per month per room at all times and in all places. In many cases it may be that the rate will not be fixed by the room, but at a fixed rate per month or year for a house or apartment.

The form as amended is approved. As soon as the approved form is printed please send me several copies for purposes of record.

Respectfully,

_____,
Comptroller.

By direction and with the approval of
GEO. B. CORTELYOU,
Secretary of the Treasury.

[No. 112.]

**FOR THE PROMOTION OF JOSEPH A. O'CONNOR, CARPENTER IN
THE UNITED STATES NAVY—DEPARTMENT LETTER.**

NAVY DEPARTMENT,
Washington, March 27, 1908.

SIR: In reply to your letter of the 25th instant, with reference to a bill (H. R. 17622) "for the promotion of Joseph A. O'Connor, carpenter in the United States Navy, to the rank of chief carpenter, and placing him on the retired list," I have the honor to invite attention to the Department's letter of March 4, 1908, to the chairman of the Senate Naval Committee regarding a bill (S. 5590) of similar import:

With the following modifications, the Department recommends favorable action on the proposed legislation. It is suggested that the title of the bill be amended to read "for the promotion of Carpenter Joseph A. O'Connor, United States Navy, retired, to the rank of chief carpenter on the retired list," and that the bill read:

"*Be it enacted, etc.,* That the President of the United States be, and he is hereby, authorized, by and with the advice and consent of the Senate, to promote Carpenter Joseph A. O'Connor, United States Navy, retired, to the rank of chief carpenter on the retired list, his commission to be dated as of April twenty-seventh, nineteen hundred and four."

It appears that Carpenter O'Connor was appointed in 1897; he was due for promotion to the grade of chief carpenter on April 27, 1904; was examined for promotion on August 4, 1904, and found not qualified physically to perform all his duties at sea and on shore in the next higher grade. He appeared before a naval retiring board and on September 30, 1904, was found not to be permanently incapacitated for active service and was granted sick leave for six months.

On December 19, 1905, Carpenter O'Connor was again examined physically for promotion and found not qualified to perform all of his duties at sea in the next higher grade, and on January 8, 1906, he appeared before a retiring board for examination preliminary to retirement. As a result of this last examination he was transferred to the retired list for physical disability incurred in the line of duty in accordance with the provisions of section 1453 of the Revised Statutes.

The Department considers that the provisions of law which entitle officers of the Army and Marine Corps, who are due for promotion and are found physically disqualified, to retire in the next higher grade, should be extended to the officers of the Navy, who would seem to have an equal claim to the benefits of such legislation.

Very respectfully,

V. H. METCALF, *Secretary.*

HON. GEORGE EDMUND FOSS,
Chairman Committee on Naval Affairs, House of Representatives.

[No. 113.]

**COPIES OF COMMENDATORY LETTERS ADDRESSED TO CHIEF
BOATSWAIN PATRICK DEERY, U. S. NAVY—DEPARTMENT
LETTER.**

NAVY DEPARTMENT,
Washington, March 31, 1908,

SIR: As requested in your letter of the 25th instant, I have the honor to forward herewith copies of commendatory letters addressed by the Department to Chief Boatswain Patrick Deery, U. S. Navy, for heroic services rendered by him while serving as boatswain and as chief boatswain. The letters in question bear date, March 15, 1900, April 27, 1904, and July 20, 1907, respectively.

Under existing laws medals of honor are not awarded to officers of the Navy, the same being given to enlisted men only.

Very respectfully,

TRUMAN H. NEWBERRY,
Acting Secretary.

HON. GEORGE EDMUND FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives.*

NAVY DEPARTMENT,
Washington, July 20, 1907.

SIR: The Department commends your action in successfully undertaking a trip of over thirty miles in a small open boat for the purpose of communicating with the navy-yard, New York, the fact that the *Pontiac* was disabled at sea.

Very respectfully,

WM. S. COWLES,
Acting Secretary.

PATRICK DEERY,
*Chief Boatswain, U. S. Navy,
Navy-Yard, New York.*

NAVY DEPARTMENT,
Washington, April 27, 1904.

SIR: In the letter of the commanding officer of the *Peoria*, dated December 5, 1903, reporting the passage of that vessel from Newport,

R. I., to Norfolk, Va., towing the submarine torpedo boats *Adder* and *Moccasin*, which broke adrift from the *Peoria* off Cape Henry, the following account of your conduct appears:

All attempts being unsuccessful, Boatswain P. Deery, U. S. Navy, volunteered to swim to the *Adder* and carry a line to her. Steamed close under the lee of the *Adder*, when Boatswain Deery jumped overboard and swam with the line to the *Adder*. In spite of the heavy sea, wind, and intense cold, by his heroic efforts he was able to reach the *Adder*, and although the submarine was rolling heavily and seas constantly dashing over her, he climbed up the side, and after great efforts made fast a line from the *Peoria* to the tow lines between the submarines.

During all this time Boatswain Deery was in constant danger of being washed overboard and being crushed between the submarines. He, however, never faltered in his work, and only left the *Adder* when his work was accomplished. When finally hauled on board he was completely exhausted.

The commanding officer of the *Adder* and *Moccasin*, in his report of the matter, states:

The act of Boatswain Patrick Deery, U. S. Navy, in swimming to the *Adder* and making fast a line, was one of great heroism and was successfully accomplished. This line held the two boats for about two hours, when it parted.

In forwarding the reports, the commandant of the navy-yard, Norfolk, adds:

* * * the conduct of the officers and crew of the *Peoria* is highly commended, and particularly the conduct of Boatswain Patrick Deery, which furnished an example of extraordinary daring and self-devotion.

The Department regards your conduct on this occasion as highly commendable, reflecting much credit upon the naval service as well as upon yourself. It is most gratifying to the Department to have occasion to recognize such an achievement requiring, in such a marked degree, great courage and endurance, skill, good judgment, and particularly your zealous devotion to duty in volunteering for the act.

Very respectfully,

W. H. MOODY, *Secretary*.

Boatswain PATRICK DEERY,
U. S. S. *Peoria*.

NAVY DEPARTMENT,
Washington, March 15, 1900.

SIR: The Department has much pleasure in transmitting herewith, for your information, a copy of a letter received from the commanding officer of the U. S. S. *Petrel*, inviting attention to the courage displayed by you in rescuing from drowning Private Donnelly, U. S. Marine Corps, on February 3, 1900.

It affords the Department especial gratification to testify to your conduct on this occasion, which receives its commendation. The Bureau of Navigation has been instructed to place the letter of the commanding officer of the *Petrel* with your record.

Very respectfully,

J. D. LONG, *Secretary*.

Boatswain PATRICK DEERY, U. S. Navy,
U. S. S. *Petrel*.
(Asiatic Station, Manila, P. I.)

U. S. S. PETREL,
Cavite, P. I., February 5, 1900.

SIR: 1. I have to call your attention to the good judgment and courage displayed by Boatswain Patrick Deery, U. S. Navy, in rescuing from drowning Private Donnelly, U. S. Marine Corps, on Saturday, the 3d instant.

2. While the *Rapido* was making her regular trip from Manila to Cavite, Private Donnelly, being under the influence of liquor, fell overboard. Boatswain Deery maneuvered and stopped the boat, but it was soon evident that the man could not keep afloat more than a few minutes longer. Mr. Deery then asked me to look out for the boat and he jumped overboard and swam to Donnelly, carrying him a life buoy, by the aid of which the half-drowned man was pulled on board and resuscitated by the doctors present.

3. In this brave act Mr. Deery was assisted by two Filipinos, who jumped overboard and swam to Donnelly and Mr. Deery. Their names are Francisco Perez and Juan de Castro.

Very respectfully,

JAMES T. SMITH,
Lieutenant-Commander, U. S. Navy.

The COMMANDANT U. S. NAVAL STATION,
Cavite, P. I.

[No. 114.]

COMMITTEE ON NAVAL AFFAIRS
HOUSE OF REPRESENTATIVES

MARCH, 1908

DATA AND TABLES RELATIVE TO PAY
OF OFFICERS AND MEN OF THE
UNITED STATES NAVY

PAY AND ALLOWANCES OF OFFICERS UNITED STATES NAVY.

OLD NAVY PAY.

INEQUALITIES OF THE PRESENT NAVY PAY TABLES FOR OFFICERS.

A lieutenant at sea after five years from date of commission as such receives old navy pay, which is \$2,600 per annum, while the highest army pay for lieutenant is \$2,520. On shore his army pay would be \$2,520, and his navy pay \$2,200. On leave his old navy pay would be \$1,800, while his army pay under like conditions is \$2,520. Consequently, this officer would take at sea old navy pay and on shore duty army pay. On leave or waiting orders he would take army pay up to the limit of leave allowed (thirty days in each year). For leave in excess of thirty days per annum he would take old navy pay, \$1,800, as army pay in excess of thirty days' leave each year is \$1,260 per annum.

This same rule applies to all paymasters with the rank of lieutenant above No. 46 in the list of paymasters in the January Register of Commissioned and Warrant Officers, 1908.

The Medical Corps is now practically all on army pay, as all surgeons have the rank of lieutenant-commander, while the passed assistant and assistant surgeons have all been commissioned since July 1, 1899, and started on army pay when they entered.

Medical and pay inspectors who rank as commanders receive \$4,400 at sea, while commanders in the line can under the present law receive only \$4,000; but any officer of the line, no matter what his rank, if ordered as fleet engineer receives \$4,400, which is more than the commanding officers not above the rank of commanders receive.

Warrant officers after twelve years from date of appointment, with less than fifteen years accumulated service, upon promotion to chief warrant officers, receive a reduction of \$120 per annum, as the pay of the warrant officer is \$1,800 and that of the chief warrant officer is \$1,680 per annum for twelve years' service.

Rear-admirals, second nine, receive old navy pay at sea, \$6,000, while on shore they receive army pay, with quarters (or commutation, 8 rooms at \$12 per month or \$1,152 per annum), also allowance of heat and light.

If all officers are placed on army pay these inequalities will not exist.

PAY OF OFFICERS.

The Navy Register contains all the various rates of pay and allowances authorized by acts of Congress; but the rate of pay to which any one individual officer is entitled depends (a) upon the corps to which he belongs; (b) the length of time he has been in the naval

service; (c) whether he was commissioned prior to July 1, 1899; (d) the rank that he holds, and (e) the exact nature of the duty upon which he may be employed. All of these questions must necessarily be taken into consideration in figuring up the rate of pay or the allowances to which any officer is entitled; and the different rates and conditions are so mixed, that it is difficult for a person not acquainted with all the laws applying to navy pay (including the decisions of the courts and accounting officers of the Treasury thereon) to determine the amount of compensation which any officer receives.

ACTIVE LIST.

LINE, MEDICAL, AND PAY CORPS.

The "personnel act," which became effective July 1, 1899, placed all officers of the line, medical, and pay corps then in the Navy on army pay; and a subsequent act (June 7, 1900) gave them the privilege of drawing old navy pay whenever it is in excess of the pay of officers of corresponding rank in the Army. Officers of the line, medical, and pay corps who have been commissioned subsequent to July 1, 1899, are entitled to army pay only.

PROFESSORS, CONSTRUCTORS, AND CIVIL ENGINEERS.

The rate of pay of professors of mathematics, civil engineers, naval constructors, warrant officers, and mates. These officers are not entitled to army pay except when serving on shore duty beyond seas, in which case all except warrant officers and mates receive the pay of army officers of the same rank detailed for duty in similar places.

CHAPLAINS.

Chaplains appointed prior to June 30, 1906, receive either old navy pay or army pay, depending upon their rank and duty. Those appointed since that date receive army pay. These conditions are briefly explained in the table.

ALLOWANCES.

The values of monthly allowances are only allowed when officers are on shore duty and when not occupying Government quarters. All commissioned officers of the Navy (including chief boatswains, chief gunners, chief carpenters, and chief sailmakers, but excepting chaplains on old navy pay) are entitled to commutation of quarters under the above conditions. Naval constructors, civil engineers, professors of mathematics, and chaplains on old navy pay are not entitled to the light and heat allowances. No officers of the Navy are entitled to the ration allowances of 30 cents per day which was allowed prior to July 1, 1899, except pay clerks, chaplains, naval constructors, and warrant officers, and then only while attached to a seagoing vessel. Midshipmen are, however, entitled to the commutation value of the ration at all times.

OLD NAVY PAY PRIOR TO JULY 1, 1899.

Table of rates of pay of officers of the line, Medical and Pay Corps, prior to July 1, 1899.

Rank.	At sea.	On shore duty..	On leave or waiting orders.
Rear-admirals.....	\$6, 000	\$5, 000	\$4, 000
Commodores.....	5, 000	4, 000	3, 000
Captains.....	4, 500	3, 500	2, 800
Commanders.....	3, 500	3, 000	2, 300
Lieutenant-commanders:			
First four years after date of commission.....	2, 800	2, 400	2, 000
After four years from date of commission.....	3, 000	2, 600	2, 200
Lieutenants:			
First five years after date of commission.....	2, 400	2, 000	1, 600
After five years from date of commission.....	2, 600	2, 200	1, 800
Lieutenants (junior grade):			
First five years after date of commission.....	1, 800	1, 500	1, 200
After five years from date of commission.....	2, 000	1, 700	1, 400
Ensigns:			
First five years after date of commission.....	1, 200	1, 000	800
After five years from date of commission.....	1, 400	1, 200	1, 000
Naval cadets.....	500	500	500
Mates.....	900	700	500
Medical and pay directors and medical and pay inspectors and chief engineers having the same rank at sea.....	4, 400	.....	.....
Fleet surgeons, fleet paymasters, and fleet engineers.....	4, 400	.....	.....
Surgeons, paymasters, and chief engineers:			
First five years after date of commission.....	2, 800	2, 400	2, 000
Second five years after date of commission.....	3, 200	2, 800	2, 400
Third five years after date of commission.....	3, 500	3, 200	2, 600
Fourth five years after date of commission.....	3, 700	3, 600	2, 800
After twenty years from date of commission.....	4, 200	4, 000	3, 000
Passed assistant surgeons and passed assistant paymasters:			
First five years after date of appointment.....	2, 000	1, 800	1, 500
After five years from date of appointment.....	2, 200	2, 000	1, 700
Passed assistant engineers:			
First five years after date of appointment.....	2, 000	1, 800	1, 500
Second five years after date of appointment.....	2, 200	2, 000	1, 700
Third five years after date of appointment.....	2, 450	2, 250	1, 900
Fourth five years after date of appointment.....	2, 700	2, 350	1, 950
Assistant surgeons, assistant paymasters, and assistant engineers:			
First five years after date of appointment.....	1, 700	1, 400	1, 000
After five years from date of appointment.....	1, 900	1, 600	1, 200

REMARKS.

1. Any officer of the line, Medical or Pay Corps, commissioned prior to July 1, 1899, is entitled to receive pay according to the then existing law whenever it is in excess of the pay of officers of corresponding rank in the Army. (Acts March 3, 1899, and June 7, 1900.)
2. Naval cadets or midshipmen who were not commissioned prior to July 1, 1899, are not entitled to the old navy rates of pay. (See Comp. Dec., Sept. 19, 1902, and Oct. 23, 1903.)
3. Acting assistant surgeons appointed under the act of May 4, 1898, are entitled to receive pay as provided for assistant surgeons in the Navy prior to the act of March 3, 1899. (See Comp. Dec., Aug. 31, 1903.)
4. Acting assistant surgeons are entitled to occupy Government quarters when available, but are not entitled to commutation of quarters. (See Comp. Dec., Oct. 5, 1903.)

Table showing army pay and old navy pay to certain officers.

Pay per annum of certain naval officers commissioned subsequent to July 1, 1899; officers of the line and of the medical and pay corps having same rank.		Army pay at sea or on shore duty.	Allowances (per month), officers of line, medical and pay corps on shore duty when not occupying public quarters—C o m - mutation of quarters.	
Base pay.	Rank.		Rooms.	Amount.
\$1,400.00	Ensign (after 5 years in naval service).....	\$1,540.00	2	\$24.00
1,500.00	Lieutenant, junior grade (after 5 years in naval service).....	1,650.00	3	36.00
1,800.00	Lieutenant (after 5 years in naval service).....	1,980.00	4	48.00
	Lieutenant (after 10 years in naval service).....	2,160.00	4	48.00
	Lieutenant (after 15 years in naval service).....	2,340.00	4	48.00
2,500.00	Lieutenant-commander (after 15 years in naval service).....	3,250.00	5	60.00
	Lieutenant-commander (after 20 years in naval service), maximum pay.....	3,500.00	5	60.00
3,000.00	Commander, maximum pay.....	4,000.00	6	72.00
3,500.00	Captain, maximum pay.....	4,500.00	7	84.00
5,500.00	Rear-Admirals, lower nine.....	5,500.00	8	96.00
7,500.00	Rear-Admirals, upper nine.....	7,500.00	9	108.00
13,500.00	Admiral.....	13,500.00	.....	125.00
1,400.00	Chief boatswains (after 5 years).....	1,540.00	2	24.00
1,400.00	Chief gunners (after 10 years).....	1,680.00	2	24.00
1,400.00	Chief sailmakers (after 15 years).....	1,820.00	2	24.00
1,400.00	Chief carpenters (after 20 years).....	1,960.00	2	24.00

Old navy pay.—Officers of the line, medical and pay corps commissioned prior to July 1, 1899, receive old navy pay when such pay is greater than army pay. The only cases in which such old navy pay is now drawn are as follows:

	Sea duty.	Shore duty.	Waiting orders.
Medical and pay inspectors with rank of commander and officers detailed as fleet engineers, fleet surgeons, and fleet paymasters	\$4,400.00	.....	.....
Lieutenants: First 5 years after date of commission as such	2,400.00	\$2,000.00	.....
After 5 years	2,600.00	2,200.00	.....
Rear-Admirals, lower nine	6,000.00	.....	.....
Paymasters with rank of lieutenant:			
First 5 years after date of commission as such ..	2,800.00	2,400.00	.....
Second 5 years after date of commission as such ..	3,200.00	2,800.00	\$2,400.00
Third 5 years after date of commission as such ..	3,500.00	3,200.00	2,600.00

NOTES.

1. Officers of the line, medical and pay corps, who entered the service subsequent to July 1, 1899, are entitled to army pay only.
2. All officers on army pay receive an increase of pay of 10 per cent while serving on shore duty beyond seas.
3. Officers at sea do not receive any allowances, but are furnished quarters, light, and heat in kind.
4. Officers on army pay, when on shore duty, receive for each room to which their rank entitles them a "light allowance" not to exceed 1,500 cubic feet of gas (or its equivalent in electricity, etc.); from May 1 to August 31 this allowance is reduced to 800 cubic feet of gas per room. Such officers also receive as "heat allowance," wood (or its equivalent in coal) in accordance with the following table:

Table 2 of active list: Officers of the line, Medical and Pay Corps of the Navy, and officers of the Marine Corps on army pay.

Rank.	Base pay.
Admiral.....	\$13,500
Rear-admirals:	
First nine.....	7,500
Second nine.....	5,500
Chiefs of Bureaus and Brigadier-General Commandant of Marine Corps..	5,500
Captains, Navy.....	3,500
Judge-Advocate-General and colonels, Marine Corps, line and staff.....	3,500
Commanders, Navy.....	3,000
Lieutenant-colonels, Marine Corps, line and staff.....	3,000
Lieutenant-commanders, Navy.....	2,500
Majors, Marine Corps, line and staff.....	2,500
Lieutenants, Navy.....	1,800
Captains, Marine Corps:	
Line.....	1,800
Staff.....	2,000
Lieutenants (junior grade), Navy.....	1,500
First lieutenants and leader of band, Marine Corps.....	1,500
Ensign, Navy.....	1,400
Second lieutenants, Marine Corps, chief boatswains, chief gunners, chief carpenters, and chief sailmakers.....	1,400

REMARKS.

1. (a) All officers paid under this table below the rank of rear-admiral or brigadier-general are entitled by law to 10 per centum upon the full yearly pay of their grades for each and every period of five years' service, as increase for length of service, or "longevity pay," computed upon their total actual service in Army, Navy, and Marine Corps; provided that the total amount of such increase shall not exceed 40 per cent upon the full yearly pay of the grade; and provided further that the pay of a captain in the Navy or colonel of Marines shall not exceed \$4,500 per annum and that of a commander in the Navy or lieutenant-colonel of Marines \$4,000 per annum.

(b) By decision of the U. S. Supreme Court (208 U. S., 226) assistant and passed assistant surgeons in the Navy are allowed mounted pay of an army officer of corresponding rank.

2. Army act March 2, 1901, provides: "That hereafter the pay proper of all officers and enlisted men serving (on shore) beyond the limits of the States comprising the Union and the territories of the United States contiguous thereto, shall be increased 10 per centum for officers * * * * * over and above the rates of pay proper as fixed by law in times of peace, and the time of such service shall be counted from the date of departure from said States to the date of return thereto: *Provided further*, That officers * * * * * who have served in China at any time since the 26th day of May, 1900, shall be allowed and paid for such service the same increase of pay proper as herein provided for."

(a) "Officers of the Navy and officers and enlisted men of the Marine Corps who have been detailed or may hereafter be detailed for shore duty in Alaska, the Philippine Islands, Guam, or elsewhere beyond the continental limits of the United States shall be considered as having been detailed for 'shore duty beyond seas,' and shall receive pay accordingly, with such additional pay as may be provided by law for service in island possessions of the United States." (Act March 3, 1901.) "Excepting Porto Rico and Hawaii." (Act June 12, 1906.)

(b) Officers on army pay detailed to "shore duty beyond seas" are entitled to 10 per cent increase while taking passage in a naval vessel, army transport, or merchant vessel to their posts of duty. (See Compt. Dec., Feb. 4, 1903; Jan. 20, 1904; June 20, 1905; May 20, 1907.)

(c) Officers detached from "shore duty beyond seas" and ordered to the United States are not entitled to the 10 per cent increase while taking passage in a merchant vessel from their posts of duty. (Comp. Dec., Dec. 29, 1904.)

(d) The base pay plus longevity increases is the "pay proper" upon which total the 10 per cent increase for "shore duty beyond seas" is computed. (Comp. Dec., Apr. 13, 1905.)

3. Section 13 of the act approved March 3, 1899, entitled "An act to reorganize and increase the efficiency of the personnel of the Navy and Marine Corps of the United States," is hereby so amended as to provide that nothing therein contained shall operate to reduce the pay which, but for the passage of said act, would have been received by any commissioned officer at the time of its passage or thereafter. (Act of June 7, 1900.)

4. Officers of the line, Medical and Pay Corps of the Navy, retired prior to the passage of the act approved March 3, 1899, continue to receive the same pay on the retired list that they received before the

passage of said act. Those retired subsequently receive 75 per cent of pay of their rank, including credit for length of service on active list.

(a) During a period of twelve years from the passage of this act any naval officer on the retired list may, in the discretion of the Secretary of the Navy, be ordered to such duty as he may be able to perform at sea or on shore, and while so employed shall receive the pay and allowances of an officer of the active list of the grade from which he was retired. (Act June 7, 1900.)

(b) Officers on the retired list ordered to active duty are not entitled to count the time spent on the retired list in computing their longevity increase of pay. (Comp. Dec., Feb. 4, 1905.)

ALLOWANCES.

The monthly commutation allowance for quarters of the Admiral of the Navy is fixed by law at \$125. All other commissioned officers of the line and of the Medical, Pay, and Construction Corps of the Navy, and all officers of the Marine Corps, receive the same allowances, except forage to naval officers, as are or may be provided by or in pursuance of law for the officers of corresponding rank in the Army. Chief boatswains, chief gunners, chief carpenters, chief sailmakers, boatswains, gunners, carpenters, sailmakers, warrant machinists, pharmacists, and mates receive the same allowance for commutation of quarters as second lieutenants of the Marine Corps. The following table below shows allowance of quarters to officers of the Navy, except chaplains with the rank of lieutenant appointed prior to July 1, 1906, and officers of the Marine Corps.

Quarters may be hired for officers "serving with troops" under certain conditions. (See art. 1238 (3), N. R., 1905.)

When quarters are not furnished by the Government, officers will be allowed commutation at the rate of \$12 a room for each room of their allowance. (Art. 1240, N. R., 1905.)

Hereafter heat and light actually necessary for the authorized allowance of quarters for officers and enlisted men shall be furnished at the expense of the United States under such regulations as the Secretary of War may prescribe. (Army appropriation act approved March 2, 1907.) (Art. 1241, N. R., 1905.)

Table showing allowance of quarters and fuel to officers of the Army and those of corresponding rank in the Navy.
[Expressed in cords of oak wood.]

Rank.	As quarters (rooms).	Cords of wood per month.		Increased allowance from September 1 to April 30.	
		May 1 to August 31 (Tropics, year round).	September 1 to April 30.	Between thirty-sixth and forty-third degrees north latitude, one-fourth.	North of forty-third degree, one-third.
Rear-admiral, first nine.....	9	1½	6	1½	2
Rear-admiral, second nine, or officer of higher rank occupying 8 rooms as quarters.....	8	1½	5½	1½	1½
Captain or officers of higher rank occupying 7 rooms as quarters..	7	1½	5	1½	1½
Commander or officer of higher rank occupying 6 rooms as quarters.....	6	1½	4½	1½	1½
Lieutenant-commander or officer of higher rank occupying 5 rooms as quarters.....	5	1½	4	1	1½
Lieutenant or officer of higher rank occupying 4 rooms as quarters...	4	1½	3½	¾	1½
Lieutenant, junior grade, or officer of higher rank occupying 3 rooms as quarters.....	3	1	3	¾	.....
Ensign or officer of higher rank occupying 2 rooms as quarters.....	2	1	2½	¾	¾
Officer of any rank occupying 1 room as quarters.....	1	1	1½	¾	¾

Each officer (on army pay and allowances) will be allowed, while occupying public quarters or quarters other than public, where gas, acetylene, electricity, or mineral-oil lamps are installed at the expense of the United States, for each room to which his rank entitles him, for the period between September 1 and April 30, 1,500 cubic feet of gas, or 150 cubic feet of acetylene, of 20,000 watt-hours of electric current, or 4 gallons of mineral oil per month; and from May 1 to August 31, 900 cubic feet of gas, or 90 cubic feet of acetylene, or 12,000 watt-hours of electric current, or 3 gallons of mineral oil per month for each room to which entitled, which allowances may be considered accumulative within a fiscal year, provided that the accumulated allowance shall at no time be exceeded. Where an officer occupies quarters other than public, the lighting of which is measured by separate meter readings, settlement will be made by the Government with the owner or authorized agent of the quarters, or agent of the company supplying the light, for the actual quantity of gas, acetylene, or electric current supplied. Where an officer occupies quarters other than public, which are lighted by gas, acetylene, or electricity, and the quantity supplied is not measured by separate meter readings, settlement will be made by the Government with the owner or authorized agent for light for the number of rooms to which the rank of the officer entitles him, in accordance with the prescribed allowance. An officer occupying as quarters a number of rooms less than his authorized allowance will be entitled to mineral oil for such number of rooms only as he actually occupies. (Art. 1241 [1-b, c, d, e], N. R.)

At stations where light is furnished from a Government plant, the charge for an excess used over the prescribed allowance will be the actual cost of manufacture in the case of electricity or gas, or at the actual cost of mineral oil. If the prescribed allowance is exceeded, payment for such excess will be immediately deposited with the yard paymaster through whom the light is furnished. (Art. 1241 [1-f], N. R.)

The approximate equivalents of soft wood and coal, in terms of oak wood, are as follows:

Wood.		Coal.		Gas.	Oil.
Hard.	Soft.	Anthracite.	Bituminous.	Cubic feet.	Gallons.
Stick or sawed, as required.	Stick or sawed, as required.	Any size.			
Cord. 1	Cords. 1½	Pounds. 1,700	Pounds. 2,100	6,000	40

A reasonable amount of an officer's allowance of fuel may be purchased in kindling wood, which will be sold on the basis of its equivalent in oak wood.

Fuel may be furnished to officers of the Marine Corps on the active list by the Quartermaster's Department.

QUARTERS FOR OFFICERS.

Officers of the Army and all officers of corresponding rank in the Marine Corps, Revenue-Cutter Service, and those of the Navy who are on army pay and allowances receive quarters, heat, and light.

When *not* provided with quarters in kind they are paid for quarters as follows, viz:

Rank.	Number of rooms at \$12 per month.	Amount per month.	Amount per annum
Major-general or rear-admiral, first nine.....	9	\$108.00	\$1,296.00
Brigadier-general or rear-admiral, second nine.....	8	96.00	1,152.00
Colonels or captains.....	7	84.00	1,008.00
Lieutenant-colonels or commanders.....	6	72.00	864.00
Majors or lieutenant-commanders.....	5	60.00	720.00
Captains or lieutenants.....	4	48.00	576.00
First lieutenants or lieutenants, junior grade.....	3	36.00	432.00
Second lieutenants or ensigns.....	2	24.00	288.00
Officers of any rank occupying 1 room as quarters.....	1	12.00	144.00

Heat and light for the authorized number of rooms is furnished in kind, in accordance with the allowance table. When the quantities stated are exceeded, the officers pay for the excess at cost price to the Government.

HEAT AND LIGHT FOR OFFICERS.

Officers of the Army and all officers of corresponding rank in the Marine Corps, Revenue-Cutter Service, and those of the Navy now on army pay receive heat and light as per accompanying table, which is estimated at following values:

Rank.	Number of rooms.	Amount per month.		Amount per annum.
		May 1 to August 31.	September 1 to April 30.	
Major-general or rear-admiral, first nine....	9	\$12. 48	\$40. 80	\$376. 32
Brigadier-general or rear-admiral, second nine.....	8	11. 76	37. 10	343. 84
Colonels or captains.....	7	11. 04	33. 40	311. 36
Lieutenant-colonels or commanders.....	6	10. 32	29. 70	278. 88
Majors or lieutenant-commanders.....	5	9. 60	28. 00	246. 40
Captains or lieutenants.....	4	8. 88	22. 30	213. 92
First lieutenants or lieutenants (junior grade).....	3	6. 16	18. 60	173. 44
Second lieutenants or ensigns.....	2	5. 44	14. 90	140. 96
Officers of any rank occupying 1 room.....	1	4. 72	7. 45	78. 48

NOTE.—Naval constructors, professors of mathematics, civil engineers, and warrant officers are not now entitled to the above allowances for heat and light.

Per diem table showing value of heat under full allowance.

SEPTEMBER 1 TO APRIL 30.

Days.	Rooms.								
	1	Ensign. 2	Lieut. (J. G.) 3	Lieut. 4	Lieut. comdr. 5	Comdr. 6	Capt. 7	Rear adml. 8	Rear adml. 9
1	\$0.21	\$0.42	\$0.50	\$0.58	\$0.66	\$0.75	\$0.83	\$0.92	\$1.00
2	.41	.83	1.00	1.17	1.33	1.50	1.67	1.83	2.00
3	.62	1.25	1.50	1.75	2.00	2.25	2.50	2.75	3.00
4	.83	1.67	2.00	2.33	2.66	3.00	3.33	3.67	4.00
5	1.04	2.08	2.50	2.92	3.33	3.75	4.17	4.58	5.00
6	1.25	2.50	3.00	3.50	4.00	4.50	5.00	5.50	6.00
7	1.46	2.92	3.50	4.08	4.67	5.25	5.83	6.42	7.00
8	1.66	3.33	4.00	4.67	5.33	6.00	6.67	7.33	8.00
9	1.87	3.75	4.50	5.25	6.00	6.75	7.50	8.25	9.00
10	2.08	4.17	5.00	5.83	6.67	7.50	8.33	9.17	10.00
11	2.29	4.58	5.50	6.42	7.33	8.25	9.17	10.08	11.00
12	2.50	5.00	6.00	7.00	8.00	9.00	10.00	11.00	12.00
13	2.71	5.42	6.50	7.58	8.67	9.75	10.83	11.92	13.00
14	2.91	5.83	7.00	8.17	9.33	10.50	11.66	12.83	14.00
15	3.12	6.25	7.50	8.75	10.00	11.25	12.50	13.75	15.00
16	3.33	6.67	8.00	9.33	10.67	12.00	13.33	14.67	16.00
17	3.54	7.08	8.50	9.92	11.33	12.75	14.17	15.58	17.00
18	3.75	7.50	9.00	10.50	12.00	13.50	15.00	16.50	18.00
19	3.96	7.92	9.50	11.08	12.67	14.25	15.83	17.42	19.00
20	4.16	8.33	10.00	11.67	13.33	15.00	16.67	18.33	20.00
21	4.37	8.75	10.50	12.25	14.00	15.75	17.50	19.25	21.00
22	4.58	9.17	11.00	12.83	14.67	16.50	18.33	20.17	22.00
23	4.79	9.58	11.50	13.42	15.33	17.25	19.17	21.08	23.00
24	5.00	10.00	12.00	14.00	16.00	18.00	20.00	22.00	24.00
25	5.21	10.42	12.50	14.58	16.67	18.75	20.83	22.92	25.00
26	5.41	10.83	13.00	15.17	17.33	19.50	21.67	23.83	26.00
27	5.62	11.25	13.50	15.75	18.00	20.25	22.50	24.75	27.00
28	5.83	11.67	14.00	16.33	18.67	21.00	23.33	25.67	28.00
29	6.04	12.08	14.50	16.92	19.33	21.75	24.17	26.58	29.00
30	6.25	12.50	15.00	17.50	20.00	22.50	25.00	27.50	30.00

Per diem table showing value of heat under full allowance—Continued.

MAY 1 TO AUGUST 31.

Days.	Rooms.								
		Ensign.	Lieut. (J. G.)	Lieut.	Lieut.- comdr.	Comdr.	Capt.	Rear adml.	Rear adml.
	1	2	3	4	5	6	7	8	9
1	\$0.13	\$0.13	\$0.13	\$0.20	\$0.20	\$0.20	\$0.20	\$0.20	\$0.20
2	.27	.27	.27	.40	.40	.40	.40	.40	.40
3	.40	.40	.40	.60	.60	.60	.60	.60	.60
4	.53	.53	.53	.80	.80	.80	.80	.80	.80
5	.67	.67	.67	1.00	1.00	1.00	1.00	1.00	1.00
6	.80	.80	.80	1.20	1.20	1.20	1.20	1.20	1.20
7	.93	.93	.93	1.40	1.40	1.40	1.40	1.40	1.40
8	.07	.07	.07	1.60	1.60	1.60	1.60	1.60	1.60
9	1.20	1.20	1.20	1.80	1.80	1.80	1.80	1.80	1.80
10	1.33	1.33	1.33	2.00	2.00	2.00	2.00	2.00	2.00
11	1.47	1.47	1.47	2.20	2.20	2.20	2.20	2.20	2.20
12	1.60	1.60	1.60	2.40	2.40	2.40	2.40	2.40	2.40
13	1.73	1.73	1.73	2.60	2.60	2.60	2.60	2.60	2.60
14	1.87	1.87	1.87	2.80	2.80	2.80	2.80	2.80	2.80
15	2.00	2.00	2.00	3.00	3.00	3.00	3.00	3.00	3.00
16	2.13	2.13	2.13	3.20	3.20	3.20	3.20	3.20	3.20
17	2.27	2.27	2.27	3.40	3.40	3.40	3.40	3.40	3.40
18	2.40	2.40	2.40	3.60	3.60	3.60	3.60	3.60	3.60
19	2.53	2.53	2.53	3.80	3.80	3.80	3.80	3.80	3.80
20	2.67	2.67	2.67	4.00	4.00	4.00	4.00	4.00	4.00
21	2.80	2.80	2.80	4.20	4.20	4.20	4.20	4.20	4.20
22	2.93	2.93	2.93	4.40	4.40	4.40	4.40	4.40	4.40
23	3.07	3.07	3.07	4.60	4.60	4.60	4.60	4.60	4.60
24	3.20	3.20	3.20	4.80	4.80	4.80	4.80	4.80	4.80
25	3.33	3.33	3.33	5.00	5.00	5.00	5.00	5.00	5.00
26	3.47	3.47	3.47	5.20	5.20	5.20	5.20	5.20	5.20
27	3.60	3.60	3.60	5.40	5.40	5.40	5.40	5.40	5.40
28	3.73	3.73	3.73	5.60	5.60	5.60	5.60	5.60	5.60
29	3.87	3.87	3.87	5.80	5.80	5.80	5.80	5.80	5.80
30	4.00	4.00	4.00	6.00	6.00	6.00	6.00	6.00	6.00

For convenience of general storekeepers and others in preparation of vouchers under full allowance.

T. J. COWIE, Pay Inspector, U. S. Navy.

Per diem table showing full allowance of gas for lighting in cubic feet.

SEPTEMBER 1 TO APRIL 30.

Days.	Rooms.								
	1	Ensign. 2	Lieut., (J. G.) 3	Lieut. 4	Lieut. comdr. 5	Comdr. 6	Capt. 7	Rear adml. 8	Rear adml. 9
1	50	100	150	200	250	300	350	400	450
2	100	200	300	400	500	600	700	800	900
3	150	300	450	600	750	900	1,050	1,200	1,350
4	200	400	600	800	1,000	1,200	1,400	1,600	1,800
5	250	500	750	1,000	1,250	1,500	1,750	2,000	2,250
6	300	600	900	1,200	1,500	1,800	2,100	2,400	2,700
7	350	700	1,050	1,400	1,750	2,100	2,450	2,800	3,150
8	400	800	1,200	1,600	2,000	2,400	2,800	3,200	3,600
9	450	900	1,350	1,800	2,250	2,700	3,150	3,600	4,050
10	500	1,000	1,500	2,000	2,500	3,000	3,500	4,000	4,500
11	550	1,100	1,650	2,200	2,750	3,300	3,850	4,400	4,950
12	600	1,200	1,800	2,400	3,000	3,600	4,200	4,800	5,400
13	650	1,300	1,950	2,600	3,250	3,900	4,550	5,200	5,850
14	700	1,400	2,100	2,800	3,500	4,200	4,900	5,600	6,300
15	750	1,500	2,250	3,000	3,750	4,500	5,250	6,000	6,750
16	800	1,600	2,400	3,200	4,000	4,800	5,600	6,400	7,200
17	850	1,700	2,550	3,400	4,250	5,100	5,950	6,800	7,650
18	900	1,800	2,700	3,600	4,500	5,400	6,300	7,200	8,100
19	950	1,900	2,850	3,800	4,750	5,700	6,650	7,600	8,550
20	1,000	2,000	3,000	4,000	5,000	6,000	7,000	8,000	9,000
21	1,050	2,100	3,150	4,200	5,250	6,300	7,350	8,400	9,450
22	1,100	2,200	3,300	4,400	5,500	6,600	7,700	8,800	9,900
23	1,150	2,300	3,450	4,600	5,750	6,900	8,050	9,200	10,350
24	1,200	2,400	3,600	4,800	6,000	7,200	8,400	9,600	10,800
25	1,250	2,500	3,750	5,000	6,250	7,500	8,750	10,000	11,250
26	1,300	2,600	3,900	5,200	6,500	7,800	9,100	10,400	11,700
27	1,350	2,700	4,050	5,400	6,750	8,100	9,450	10,800	12,150
28	1,400	2,800	4,200	5,600	7,000	8,400	9,800	11,200	12,600
29	1,450	2,900	4,350	5,800	7,250	8,700	10,150	11,600	13,050
30	1,500	3,000	4,500	6,000	7,500	9,000	10,500	12,000	13,500

Per diem table showing full allowance of gas for lighting in cubic feet—Continued.

MAY 1 TO AUGUST 31.

Days.	Rooms.								
	1	Ensign. 2	Lieut. (J. G.) 3	Lieut. 4	Lieut. comdr. 5	Comdr. 6	Capt. 7	Rear adml. 8	Rear adml. 9
1	30	60	90	120	150	180	210	240	270
2	60	120	180	240	300	360	420	480	540
3	90	180	270	360	450	540	630	720	810
4	120	240	360	480	600	720	840	960	1,080
5	150	300	450	600	750	900	1,050	1,200	1,350
6	180	360	540	720	900	1,080	1,260	1,440	1,620
7	210	420	630	840	1,050	1,260	1,470	1,680	1,890
8	240	480	720	960	1,200	1,440	1,680	1,920	2,160
9	270	540	810	1,080	1,350	1,620	1,890	2,160	2,430
10	300	600	900	1,200	1,500	1,800	2,100	2,400	2,700
11	330	660	990	1,320	1,650	1,980	2,310	2,640	2,970
12	360	720	1,080	1,440	1,800	2,160	2,520	2,880	3,240
13	390	780	1,170	1,560	1,950	2,340	2,730	3,120	3,510
14	420	840	1,260	1,680	2,100	2,520	2,940	3,360	3,780
15	450	900	1,350	1,800	2,250	2,700	3,150	3,600	4,050
16	480	960	1,440	1,920	2,400	2,880	3,360	3,840	4,320
17	510	1,020	1,530	2,040	2,550	3,060	3,570	4,080	4,590
18	540	1,080	1,620	2,160	2,700	3,240	3,780	4,320	4,860
19	570	1,140	1,710	2,280	2,850	3,420	3,990	4,560	5,130
20	600	1,200	1,800	2,400	3,000	3,600	4,200	4,800	5,400
21	630	1,260	1,890	2,520	3,150	3,780	4,410	5,040	5,670
22	660	1,320	1,980	2,640	3,300	3,960	4,620	5,280	5,940
23	690	1,380	2,070	2,760	3,450	4,140	4,830	5,520	6,210
24	720	1,440	2,160	2,880	3,600	4,320	5,040	5,760	6,480
25	750	1,500	2,250	3,000	3,750	4,500	5,250	6,000	6,750
26	780	1,560	2,340	3,120	3,900	4,680	5,460	6,240	7,020
27	810	1,620	2,430	3,240	4,050	4,860	5,670	6,480	7,290
28	840	1,680	2,520	3,360	4,200	5,040	5,880	6,720	7,560
29	870	1,740	2,610	3,480	4,350	5,220	6,090	6,960	7,830
30	900	1,800	2,700	3,600	4,500	5,400	6,300	7,200	8,100

Value to be ascertained by multiplying quantity by 80 cents per thousand cubic feet.

T. J. Cowie, Pay Inspector, U. S. Navy.

Per diem table showing full allowance of electricity for lighting in watt hours.

SEPTEMBER 1 TO APRIL 30.

Days.	Rooms.								
		Ensign.	Lieut. (J. G.)	Lieut.	Lieut. comdr.	Comdr.	Capt.	Rear adml.	Rear adml.
	1	2	3	4	5	6	7	8	9
1	700	1,300	2,000	2,700	3,300	4,000	4,700	5,300	6,000
2	1,300	2,700	4,000	5,300	6,700	8,000	9,300	10,700	12,000
3	2,000	4,000	6,000	8,000	10,000	12,000	14,000	16,000	18,000
4	2,700	5,300	8,000	10,700	13,300	16,000	18,700	21,300	24,000
5	3,300	6,700	10,000	13,300	16,700	20,000	23,300	26,700	30,000
6	4,000	8,000	12,000	16,000	20,000	24,000	28,000	32,000	36,000
7	4,700	9,300	14,000	18,700	23,300	28,000	32,700	37,300	42,000
8	5,300	10,700	16,000	21,300	26,700	32,000	37,300	42,700	48,000
9	6,000	12,000	18,000	24,000	30,000	36,000	42,000	48,000	54,000
10	6,700	13,300	20,000	26,700	33,300	40,000	46,700	53,300	60,000
11	7,300	14,700	22,000	29,300	36,700	44,000	51,300	58,700	66,000
12	8,000	16,000	24,000	32,000	40,000	48,000	56,000	64,000	72,000
13	8,700	17,300	26,000	34,700	43,300	52,000	60,700	69,300	78,000
14	9,300	18,700	28,000	37,300	46,700	56,000	65,300	74,700	84,000
15	10,000	20,000	30,000	40,000	50,000	60,000	70,000	80,000	90,000
16	10,700	21,300	32,000	42,700	53,300	64,000	74,700	85,300	96,000
17	11,300	22,700	34,000	45,300	56,700	68,000	79,300	90,700	102,000
18	12,000	24,000	36,000	48,000	60,000	72,000	84,000	96,000	108,000
19	12,700	25,300	38,000	50,700	63,300	76,000	88,700	101,300	114,000
20	13,300	26,700	40,000	53,300	66,700	80,000	93,300	106,700	120,000
21	14,000	28,000	42,000	56,000	70,000	84,000	98,000	112,000	126,000
22	14,700	29,300	44,000	58,700	73,300	88,000	102,700	117,300	132,000
23	15,300	30,700	46,000	61,300	76,700	92,000	107,300	122,700	138,000
24	16,000	32,000	48,000	64,000	80,000	96,000	112,000	128,000	144,000
25	16,700	33,300	50,000	66,700	83,300	100,000	116,700	133,300	150,000
26	17,300	34,700	52,000	69,300	86,700	104,000	121,300	138,700	156,000
27	18,000	36,000	54,000	72,000	90,000	108,000	126,000	144,000	162,000
28	18,700	37,300	56,000	74,700	93,300	112,000	130,700	149,300	168,000
29	19,300	38,700	58,000	77,300	96,700	116,000	135,300	154,700	174,000
30	20,000	40,000	60,000	80,000	100,000	120,000	140,000	160,000	180,000

Per diem table showing full allowance of electricity for lighting in watt hours—Cont'd.

MAY 1 TO AUGUST 31.

Days.	Rooms.								
	1	Ensign. 2	Lieut. (J. G.) 3	Lieut. 4	Lieut. comdr. 5	Comdr. 6	Capt. 7	Rear adml. 8	Rear adml. 9
1	400	800	1,200	1,600	2,000	2,400	2,800	3,200	3,600
2	800	1,600	2,400	3,200	4,000	4,800	5,600	6,400	7,200
3	1,200	2,400	3,600	4,800	6,000	7,200	8,400	9,600	10,800
4	1,600	3,200	4,800	6,400	8,000	9,600	11,200	12,800	14,400
5	2,000	4,000	6,000	8,000	10,000	12,000	14,000	16,000	18,000
6	2,400	4,800	7,200	9,600	12,000	14,400	16,800	19,200	21,600
7	2,800	5,600	8,400	11,200	14,000	16,800	19,600	22,400	25,200
8	3,200	6,400	9,600	12,800	16,000	19,200	22,400	25,600	28,800
9	3,600	7,200	10,800	14,400	18,000	21,600	25,200	28,800	32,400
10	4,000	8,000	12,000	16,000	20,000	24,000	28,000	32,000	36,000
11	4,400	8,800	13,200	17,600	22,000	26,400	30,800	35,200	39,600
12	4,800	9,600	14,400	19,200	24,000	28,800	33,600	38,400	43,200
13	5,200	10,400	15,600	20,800	26,000	31,200	36,400	41,600	46,800
14	5,600	11,200	16,800	22,400	28,000	33,600	39,200	44,800	50,400
15	6,000	12,000	18,000	24,000	30,000	36,000	42,000	48,000	54,000
16	6,400	12,800	19,200	25,600	32,000	38,400	44,800	51,200	57,600
17	6,800	13,600	20,400	27,200	34,000	40,800	47,600	54,400	61,200
18	7,200	14,400	21,600	28,800	36,000	43,200	50,400	57,600	64,800
19	7,600	15,200	22,800	30,400	38,000	45,600	53,200	60,800	68,400
20	8,000	16,000	24,000	32,000	40,000	48,000	56,000	64,000	72,000
21	8,400	16,800	25,200	33,600	42,000	50,400	58,800	67,200	75,600
22	8,800	17,600	26,400	35,200	44,000	52,800	61,600	70,400	79,200
23	9,200	18,400	27,600	36,800	46,000	55,200	64,400	73,600	82,800
24	9,600	19,200	28,800	38,400	48,000	57,600	67,200	76,800	86,400
25	10,000	20,000	30,000	40,000	50,000	60,000	70,000	80,000	90,000
26	10,400	20,800	31,200	41,600	52,000	62,400	72,800	83,200	93,600
27	10,800	21,600	32,400	43,200	54,000	64,800	75,600	86,400	97,200
28	11,200	22,400	33,600	44,800	56,000	67,200	78,400	89,600	100,800
29	11,600	23,200	34,800	46,400	58,000	69,600	81,200	92,800	104,400
30	12,000	24,000	36,000	48,000	60,000	72,000	84,000	96,000	108,000

Value to be ascertained by multiplying quantity by 6 cents per 1,000 watt hours.

T. J. COWIE, *Pay Inspector, U. S. Navy.*

PAY OF ENLISTED MEN OF THE UNITED STATES NAVY.

(A) Section 7 of the act of March 27, 1794, first authorized the President of the United States to fix the pay which should be allowed to petty officers, ordinary seamen, seamen, and marines. An act of July 1, 1797, contains the same authorization. The act of April 18, 1814, provides that the pay and bounty upon enlistment of seamen, ordinary seamen, and marines shall be fixed by the President of the United States. The act of March 3, 1847, provides that the pay of firemen and coal heavers employed in the naval service shall hereafter be fixed by the President in the same manner as is now provided by law for the pay of other petty officers, seamen, ordinary seamen, and marines.

These provisions of law are now included in section 1569 of the Revised Statutes, which is as follows:

The pay to be allowed to petty officers, excepting mates, and the pay and bounty upon enlistment of seamen, ordinary seamen, firemen, and coal heavers, in the naval service shall be fixed by the President: *Provided*, That the whole sum be given for the whole pay aforesaid, and for the pay of officers and for the said bounties upon enlistment shall not exceed, for any one year, the amount which may, in such year, be appropriated for such purposes.

To estimate for the pay of enlisted men, an effort was made previous to the appropriation for the fiscal year of 1908 to base the amount required on the average cost of one enlisted man. The amount actually expended on the men of each ship and station was after much labor calculated, and to the result was applied a correction to cover, at the estimated rate of reenlistment, the extra expense in gratuities, continuous service, and reenlistment pay, good-conduct badges, extra money to seamen gunners, extra pay to ratings on new ships commissioned, increasingly large sums to stimulate target practice, etc.; in fact, the items of extra pay on page 12 explains the possible additions. The amount so determined was about \$30.

The estimate for the pay and allowances of 39,000 enlisted men for the fiscal year ending June 30, 1909 (\$15,444,000), is based on an individual average pay of \$33 per month per man. This is an increase of \$3 per month per man over the estimates of previous years, due to the following cause, as previously outlined:

(1) The increase in the number of men holding good-conduct medals, each of which entitles the possessor to 75 cents per month additional pay.

(2) The increase in the number of men reenlisting under continuous service. Each enlistment of this character carries with it an increase of pay of \$1.36 per month and a gratuity or bonus of four months' extra pay, provided the man enlists within four months after expiration of last enlistment. This bonus varies from a sum of about \$76 for a reenlistment in a low rating to an amount of \$360 or over,

which would be received by a chief petty officer reenlisting after already having served three or more enlistments.

(3) The growing number of men who have completed the prescribed course of instruction for seaman gunners or petty officers, which entitles them to receive \$2 per month in addition to the pay of the rating in which they are serving.

(4) By Executive order of November 27, 1906, the pay prescribed for each rating in the Navy was increased \$5 per month during the first reenlistment and a further sum of \$3 per month during subsequent periods of service.

For the current fiscal year the Bureau estimated as necessary for the pay of the Navy \$23,643,117, which included the pay and allowances of 37,500 petty officers, seamen, and other enlisted men, based on a monthly pay of \$30 per month per man. Congress allowed, however, but 36,000 men, and the estimate necessary for the pay of the Navy was calculated by the Bureau, in view of this reduction, as \$23,103,117. The appropriation was reduced by Congress from this estimate to the sum of \$21,000,000, and as the expenditures, so far as can now be determined, are running between five and one-half and five and three-quarters millions per quarterly period of three months, a further appropriation of from \$1,000,000 to \$2,000,000 will be necessary.

The Bureau's estimate of \$30 per month per man, the basis on which the pay of enlisted men was calculated prior to the estimate for 1909, would seem to be nearly correct; but the reenlistments of the seven months from July 1, 1907, to February 1, 1908, number 2,455, which is a greater number than has ever previously been enlisted in any period of twelve months. This is so far beyond the normal number expected that a further sum of \$3 per month was the amount calculated as necessary to provide for the average cost of one man. As the service grows in years and in numerical strength a proportionate increase in the average pay per man must of necessity result. It is very desirable to retain trained men in the service, but the greater the percentage of reenlistment, the greater the expense—that is, the longer a man remains in the Navy the greater is his cost to the Government.

(D) There has been no general raise of pay proper. To encourage reenlistments Executive order of November 9, 1905, which was general in its scope, provided for the payment of \$5 and \$3 extra per month, subject to certain restrictions. (See item 6 of above extract from Navy Pay Table.) It may be generally stated that when the Department found certain specialties or crafts were required in the rapid development of ship mechanisms or ship economy and they could not be induced to enlist for the pay in effect at the time, by Executive order it was increased and the desired men obtained. Generally speaking the elasticity of the present pay table has permitted the Executive to obtain men when most needed, by competition with rates of pay in civil life, and without this elasticity the Navy, instead of being recruited to nearly its allowed complement, would be worse off than the Army, or more than 20,000 short, for with equal inducements as to pay, the Army will always be more rapidly recruited than the Navy, and the percentage of reenlistments in the former will always be greater. The work of the Navy is harder, the service much more exacting, and an enlisted man to remain in it must give up all prospect of home life. There is prac-

tically no shore duty for the enlisted man—he may average thirty days a year with his family. The “items of extra pay” indicate clearly the need at various times for inducements to make men enlist and remain in the service. It is a case in point that the miserable pay rate of musicians, and the fact that only United States citizens are enlisted, keep all bands depleted. Men can not go to sea and support a family on \$30 a month, the pay of a musician, second class, so they will not enlist now, but if by Executive order the pay is raised 25 per cent we will have no difficulty.

The following is a table of the various ratings in the Navy, which experience has proved are necessary to adequately handle the work of a modern war vessel in all its departments. The numbers in each rating depend upon the character of the vessel:

TABLE NO. 4.—*Petty officers, enlisted men, etc.—Navy.*

CLASSIFICATION AND PAY.

Chief petty officers.

Seaman branch.	Monthly pay.	Artificer branch.	Monthly pay.	Special branch.	Monthly pay.
Chief masters-at-arms.....	\$65	Chief machinists' mates....	\$70	Chief yeomen.....	\$60
Chief boatswains' mates....	50	Chief electricians.....	60	Hospital stewards.....	60
Chief gunners' mates.....	50	Chief carpenters' mates....	50	Bandmasters.....	52
Chief turret captains.....	60	Chief water tenders.....	50		
Chief quartermasters.....	50				

Petty officers, first class.

Masters-at-arms, first class	\$40	Boilermakers.....	\$65	Yeomen, first class.....	\$40
Boatswains' mates, first class.....	40	Machinists' mates, first class.....	55	First musicians.....	36
Gunners' mates, first class.....	40	Coppersmiths.....	55		
Turret captains, first class.....	50	Shipfitters, first class.....	55		
Quartermasters, first class.....	40	Electricians, first class.....	50		
		Blacksmiths.....	50		
		Plumbers and fitters.....	45		
		Sailmakers' mates.....	40		
		Carpenters' mates, first class.....	40		
		Water tenders.....	40		
		Painters, first class.....	40		

Petty officers, second class.

Master at arms, second class.....	\$35	Machinists' mates, second class.....	\$40	Yeomen, second class.....	\$35
Boatswains' mates, second class.....	35	Electricians, second class.....	40		
Gunners' mates, second class.....	35	Shipfitters, second class.....	40		
Quartermasters, second class.....	35	Oilers.....	37		
		Carpenters' mates, second class.....	35		
		Printers.....	35		
		Painters, second class.....	35		

Masters at arms, third class.....	\$30	Electricians, third class.....	\$30	Yeomen, third class.....	\$30
Coxswains.....	30	Carpenters' mates, third class.....	30	Hospital apprentices, first class.....	30
Gunners' mates, third class.....	30	Painters, third class.....	30		
Quartermasters, third class.....	30				

TABLE NO. 4.—*Petty officers, enlisted men, etc.—Navy—Continued.*

CLASSIFICATION AND PAY—Continued.

Seamen, first class.

Seaman branch.	Monthly pay.	Artificer branch.	Monthly pay.	Special branch.	Monthly pay.
Seamen gunners.....	\$26	Firemen, first class.....	\$35	Musicians, first class.....	\$32
Seamen.....	24	Shipwrights.....	25		

Seamen, second class.

Ordinary seamen.....	\$19	Firemen, second class.....	\$30	Musicians, second class	\$30
				Buglers.....	30
				Hospital apprentices.....	20

Seamen, third class.

Apprentice seamen.....	\$16	Coal passers.....	\$22	Landsmen.....	\$16
		Landsmen.....	16		

COMMISSARY BRANCH.

Chief commissary steward.....	\$70	Ships' cook, fourth class.....	\$25
Commissary steward.....	60	Bakers, first class.....	45
Ships' cooks, first class.....	55	Bakers, second class.....	35
Ships' cooks, second class.....	49	Landsmen.....	16
Ships' cooks, third class.....	30		

MESSMEN BRANCH.

Stewards to commanders in chief.....	\$60	Steorage stewards.....	\$35
Cooks to commanders in chief.....	50	Steorage cooks.....	30
Stewards to commandants.....	60	Warrant officers' stewards.....	35
Cooks to commandants.....	50	Warrant officers' cooks.....	30
Cabin stewards.....	50	Mess attendants, first class.....	24
Cabin cooks.....	45	Mess attendants, second class.....	20
Wardroom stewards.....	50	Mess attendants, third class.....	16
Wardroom cooks.....	45		

A complete statement of allowances and extra pay for enlisted men is contained in the following extract from the Navy Pay Table:

1. Petty officers of the Navy, performing duty which deprives them of quarters and their rations or commutation thereof, shall receive \$9 per month in addition to the pay of their rating. (Art. 1243, par. (5), N. R., 1905.)

2. Subsistence furnished to enlisted persons attached to ships of the Navy, when unavoidably detained on shore, under orders, or absent, by authority, for one day or more from the ship to which attached, must be charged to appropriation "Provisions, Navy." During the time of such subsistence their rations shall be stopped on board ship, and no credit for commutation therefor shall be given. (Art. 1582, par. (1), N. R., 1905.)

(a) When such authorized absence is for less than one day, and ration is not checked on pay roll, cost of subsistence shall be paid on sundry service voucher, under appropriation "Pay, Miscellaneous." (See Compt. Dec., Dec. 9, 1907.)

3. Men that have successfully completed a prescribed course of instruction for seamen gunners or petty officers may be given, by the Bureau of Navigation, a certificate to that effect, which shall entitle them to receive \$2 per month in addition to the pay of the rating in which they are serving; such certificates to continue in force only during the enlistments in which the men were respectively graduated, unless renewed by reenlistment for four years within four months from date of honorable discharge. This provision shall take effect from and after July 1, 1905, but any enlisted man then in the service that holds such a certificate shall not be deprived of the benefits of the same during the term of enlistment under which he is then serving. Men holding cer-

tificates as seamen gunners are entitled to the pay prescribed for said rating and are entitled to reenlist at any time as such at the base rate of \$26 per month; but if given any other rating than that of seamen gunner, the holder of a seamen gunners' certificate will not receive additional pay therefor, unless in continuous service. (Arts. 864 and 865 N. R. 1905.)

4. Each enlisted man of the Navy shall receive 75 cents per month, in addition to the pay of his rating, for each good-conduct medal, pin, or bar which he may heretofore have been, or shall hereafter be, awarded. On and after September 5, 1904, the date of the award of a good-conduct medal, pin, or bar shall be the date of the holder's discharge by reason of the expiration of the enlistment for which the medal, pin, or bar is given, the allowance of 75 cents per month to be reckoned from said date of award: *Provided*, That nothing herein contained shall be construed to authorize any change in the date of award of any good-conduct medal, pin, or bar heretofore awarded or to grant any arrears of allowances on account thereof. (Art. 1257, par. (2), N. R. 1905.) (See Compt. Dec., Sept. 29, 1906.)

5. Coxswains detailed as coxswains of boats propelled by machinery, or as coxswains to commanders in chief, shall receive \$5 per month in addition to their pay. (General Orders, No. 20, Jan. 20, 1901.)

6. All enlisted men of the Navy shall receive \$5 per month in addition to their pay while serving on board of submarine vessels of the Navy. Besides the \$5 per month extra pay allowed them for submarine service, enlisted men serving with submarine torpedo boats, and having been reported by their commanding officers to the Navy Department as qualified for submarine torpedo boat work, shall receive \$1 additional pay for each day during any part of which they shall have been submerged in a submarine torpedo boat while under way: *Provided, however*, That such further additional pay shall not exceed \$15 in any one calendar month. (General Orders, No. 9, Nov. 9, 1905.)

7. Seamen in charge of holds shall receive \$5 per month in addition to their pay. (General Orders, No. 20, Jan. 20, 1901.)

8. Ordinary seamen detailed as jacks-of-the-dust, or as lamplighters, shall receive \$5 per month in addition to their pay. (General Orders, No. 178, Nov. 29, 1904.)

9. Enlisted men detailed as crew messmen shall, while so acting, except when assigned as reliefs during the temporary absence of the regular crew messmen, receive extra compensation at the rate of \$5 per month. (General Orders, No. 61, Oct. 17, 1901, and General Orders, No. 79, Jan. 7, 1902.)

10. Enlisted men afloat detained beyond their regular term of enlistment until the return to the United States of the vessel to which they belong, under the provisions of section 1422 of the Revised Statutes, shall receive for the time during which they are so detained an addition of one-fourth of their former pay, "computed on the total pay which they are entitled to receive." (Art. 1196, N. R., 1905.)

11. Seamen and ordinary seamen detailed for duty as firemen or coal passers shall receive in addition to the pay of their ratings extra pay at the rate of 33 cents per day for the time so employed. (Art. 1197, N. R., 1905.)

12. Enlisted men of the naval service regularly detailed as signalmen shall receive the following extra compensation in addition to the monthly pay of their rating: Signalmen, first class, \$3; signalmen, second class, \$2; signalmen, third class, \$1. (General Orders, No. 110, Oct. 22, 1902.)

13. All chief petty officers of the Navy whose pay is not fixed by law, including chief water tenders, who, on or after July 1, 1903, shall receive permanent appointments after qualifying therefor, shall be paid at the rate of \$70 a month; those who serve under permanent appointments issued prior to said date, or under acting appointments, shall be paid at the rates now in force. The pay of chief water tenders who hold acting appointments shall be \$50 a month. (General Orders, No. 134, June 26, 1903.)

14. After October 1, 1903 (Executive order, July 25, 1903), enlisted men of the Navy, after having qualified as gun pointers, and who are regularly detailed as gun pointers by the commanding officer of the vessel, shall receive monthly, in addition to the pay of their respective ratings, extra pay as follows:

Heavy gun pointers:

First class.....	\$10
Second class.....	6

Intermediate gun pointers:

First class.....	8
Second class.....	4

Secondary gun pointers:

First class.....	4
Second class.....	2

(a) Extra pay, except as given under General Orders, No. 57 (see below), shall be allowed a qualified gun pointer during not less than two years from and after the date of his qualifying, but only while he is regularly detailed as a gun pointer at a gun of the class at which he qualified. (Art. 1257, par. (3), N. R., 1905.)

(b) "The extra pay allowed gun pointers in accordance with Executive order of July 25, 1903 (see above), shall be allowed a gun pointer regularly detailed as a gun pointer of the class at which he qualified only as long as he remains qualified: *Provided*, This order shall be construed as affecting only gun pointers who qualify subsequent to November 28, 1907." (General Orders, No. 57, Dec. 9, 1907.)

15. Enlisted men of the Navy regularly detailed by the commanding officer of a vessel as gun captains, except at secondary battery guns, shall receive, in addition to the pay of their respective ratings, \$5 per month, which, in the case of men holding certificates as gun captains, or of graduation from the gun-captain class, petty officers' school, shall include the \$2 per month to which such certificates entitle them. (General Orders, No. 137, July 25, 1903.) (Art. 1257, par. (4), N. R., 1905.)

16. Any enlisted man of the Navy detailed to perform the duties of "ship's tailor" on board of a vessel having a complement of 600 men or more, exclusive of marines, shall receive \$20 per month in addition to the monthly pay of his rating; on a vessel having a complement of from 300 to 600 men, exclusive of marines, \$15 per month in addition to the monthly pay of his rating; on a vessel having a complement of less than 300 men, exclusive of marines, \$10 per month in addition to the monthly pay of his rating. Any enlisted man of the Navy detailed as "tailor's helper" on board of a vessel having a complement of 600 men or more, exclusive of marines, shall receive \$10 per month in addition to the monthly pay of his rating: *Provided*, That the total pay of an enlisted man detailed to perform the duties of "ship's tailor" shall not exceed \$50 per month, and of "tailor's helper" shall not exceed \$40 per month. (General Orders, No. 186, June 5, 1905.)

17. To provide adequate compensation for trained men, the pay now prescribed by Executive order for each rating in the Navy is hereby increased \$5 per month during the first period of service and a further sum of \$3 per month during each and every subsequent period of service: *Provided*, That only enlisted men who are citizens of the United States and whose second and subsequent periods of service each follow next after service in the Navy that was terminated by reason of expiration of enlistment shall receive the benefits of the increased pay named herein: *Provided further*, That in the cases of men who are or were finally discharged from the Navy by reason of expiration of enlistment, the first enlistment on or after the date of this order shall be considered the second period of service which shall carry with it the increased pay provided by this order, except that men discharged on recommendations of boards of medical survey shall, if they reenter the service, be given credit for any previous periods of service in the Navy which were terminated by reason of expiration of enlistment. (Executive order, Nov. 27, 1906.) (General Orders, No. 34, Nov. 28, 1906.)

18. Chief petty officers detailed as instructors of apprentice seamen at naval stations who qualify as instructors by examination shall receive hereafter in addition to their pay the sum of \$10 per month while so detailed, such pay to be considered extra pay for special duty. (General Orders, No. 34, Nov. 28, 1906.)

19. Apprentice seamen detailed as apprentice chief petty officers, apprentice petty officers, first, second, or third class, in connection with the instruction of apprentice seamen at naval stations, shall receive hereafter in addition to their pay the sum of \$2.50, \$2, \$1.50, and \$1 each per month, respectively, while so detailed, such pay to be considered extra pay for special duty. (General Orders, No. 34, Nov. 28, 1906.)

20. Hospital stewards, hospital apprentices, first class, and hospital apprentices are not entitled to additional pay enumerated above, as their pay is fixed by law. (Act June 17, 1898; see Comp. Dec., Oct. 20, 1906.)

21. On and after July 1, 1907, all enlisted men of the Navy shall receive, on first enlistments, outfits amounting in value as follows (General Orders, No. 43, April 6, 1907):

Samoans and such men of the messmen branch as are not required to possess complete outfits, not to exceed.....	\$20.00
Men of the insular force, not to exceed.....	30.00
All other enlisted men, not to exceed.....	60.00

Any man enlisting on or after December 1, 1906, who is discharged during the first six months of a first enlistment for any cause other than disability incurred in the line of duty shall have checked against his accounts prior to discharge the cost of such portion of outfit allowed on first enlistment as he may have drawn. (General Orders, No. 31, Oct. 29, 1906.)

22. Any man who has received an honorable discharge from his last term of enlistment, or who has received a recommendation for reenlistment upon the expiration of his last term of service of not less than three years, who reenlists for a term of four years within four months from the date of his discharge shall receive an increase of \$1.36 per month to the pay prescribed for the rating in which he serves for each consecutive reenlistment. (Art. 838, N. R., 1905.)

23. Twenty cents per month is deducted from the pay of each enlisted man of the Navy, to be applied to the fund for naval hospitals. (Sec. 4808, R. S.)

24. Enlisted men of the Navy discharged by reason of expiration of enlistment shall be furnished at time of discharge, in lieu of transportation and subsistence, travel allowance of 4 cents per mile for travel performed within the United States to place of enlistment, as provided by Art. 881, pars. (1), (2), and (3), N. R., 1905.

Below are shown representative types of ships, with the total complements and the number of petty officers who directly exercise command and jurisdiction over men of inferior ratings. These correspond in their general functions to the sergeants and corporals in an infantry organization. It is noted that the average of all types gives 1 petty officer to about 7.5 men.

Vessel.	Type.	Tons.	Number on board.	Number of petty officers.	Ratio of petty officers to men on board.
Connecticut.....	Battle ship, first class.....	16,000	843	98	1 to 8.3
Tennessee.....	Armored cruiser.....	4,500	898	88	1 to 10
St. Louis.....	Cruiser, first class.....	9,700	513	77	1 to 6.8
Chicago.....	Cruiser, second class.....	4,500	269	52	1 to 5
Chattanooga.....	Cruiser, third class.....	3,200	255	46	1 to 5.5
Stewart.....	Destroyer.....	420	77	19	1 to 4
Total.....			2,855	380	1 to 7.5

In the entire Navy there are about 10,086 petty officers, as explained; the total enlisted force is now 38,300, plus the number undergoing punishment in prisons, approximately 400, and those doing duty with the Naval Militia, about 100 more, who by law are in excess of the allowed complement, 38,500.

Table showing number of vessels employed in the Army, Coast Survey, Revenue-Cutter, and Light-House Services, with tonnage, complement, and cost per month for crew.

Service.	Number of vessels.	Tonnage.	Number of men.	Cost per month for men.	Average cost per month per man.
Army Transport.....	18	68,404	1,598	\$58,757.50	\$36.77
Light-House Service.....	46	18,212	702	26,572.30	37.85
Revenue-Cutter Service.....	41	19,056	1,288	47,431.00	36.82
U. S. Coast Survey.....	11	2,859	304	12,349.60	40.75
U. S. Coast Survey (paid by Philippine government).....	4	1,348	137	3,149.17	22.91

COMPARISON OF NAVY PAY WITH THAT OF OTHER SERVICES, WHERE MEN PERFORM SIMILAR DUTIES.

This information is derived from official data furnished by the Quartermaster-General of the Army, Chief of the Revenue-Cutter Service, Secretary of the Light-House Board, and Head of the Coast Survey, and has been prepared simply for the purpose of letting

members know that the enlisted men of the Navy receive less pay than those performing similar duties in other branches of the Government service, although the Navy men have not only more important duties to perform, but are the fighting force of the United States and the men behind the guns, who should receive as much, if not more pay than those of the Merchant Marine.

Table showing monthly pay of enlisted men of the Navy on first enlistment and that of corresponding grades on army transports, Revenue-Cutter, Light-House, Coast Survey, and Fish Commission vessels.

SEAMAN BRANCH.

Ratings with monthly pay.	Navy.	Army transports.	Revenue Cutter.	Coast Survey.	Light-House.	Fish Commission.
Chief master at arms.....	\$65	\$40	\$50			
Master at arms, first class.....	40	40	38	\$40-50		
Master at arms, second class.....	35					
Master at arms, third class.....	30					
Chief boatswain's mate.....	50	45	60-75	50		
Boatswain's mate, first class.....	40	40				
Boatswain's mate, second class.....	35			35		
Chief gunner's mate.....	50		55-75			
Gunner's mate, first class.....	40		55-75			
Gunner's mate, second class.....	35					
Gunner's mate, third class.....	30					
Coxswains.....	30		32-39	35		
Chief turret captains.....	60					
Turret captains, first class.....	50					
Chief quartermaster.....	50		50		\$55	
Quartermaster, first class.....	40	40		45	45	
Quartermasters, second class.....	35		34	{ 40 30-45 }	40	
Quartermasters, third class.....	30			30-45		
Seamen gunners.....	26	35	{ 30-37 20-32 }	28-40	30-40-50	\$45
Seamen.....	24					
Ordinary seamen.....	19					
Apprentice seamen.....	18					
Landmen.....	16					

Table showing monthly pay of enlisted men of the Navy on first enlistment and that of corresponding grades on army transports, Revenue Cutter, Light-House, Coast Survey, and Fish Commission vessels—Continued.

ARTIFICER BRANCH.

Ratings with monthly pay.	Navy.	Army transports.	Revenue Cutter.	Coast Survey.	Light-House.	Fish Commission.
Chief machinists' mate	\$70	.....	\$65-75	\$80	.....	.....
Machinists' mates, first class	55	.....	.....	55	.....	.....
Machinists' mates, second class	40	.....	.....	40	.....	.....
Chief electricians	60	.....	60	.....	.....	.....
Electricians, first class	50	\$65	.....	.....	.....	.....
Electricians, second class	40	60	.....	.....	.....	.....
Electricians, third class	30	.....	.....	.....	.....	.....
Chief carpenters' mate	50	50	.....	.....	\$50-70	.....
Carpenters' mate, first class	40	.....	.....	40	.....	.....
Carpenters' mate, second class	35	45	.....	.....	.....	.....
Carpenters' mate, third class	30	.....	.....	.....	.....	.....
Chief water tenders	50	55	37-48	.....	.....	.....
Water tenders	40	.....	.....	.....	.....	.....
Boiler makers	65	.....	.....	.....	.....	.....
Coppersmiths	55	.....	.....	.....	.....	.....
Shipfitters, first class	40	.....	.....	.....	.....	.....
Blacksmiths	50	.....	.....	.....	.....	.....
Plumbers and fitters	45	.....	.....	.....	.....	.....
Sailmakers' mates	40	.....	.....	.....	.....	.....
Painters, first class	40	.....	.....	.....	.....	.....
Painters, second class	35	.....	.....	.....	.....	.....
Painters, third class	30	.....	.....	.....	.....	.....
Oilers	37	45	42-60	35-50	{ 45-60 40-56 }	\$60
Firemen, first class	35	45	32-47	.....	.....	.....
Firemen, second class	30	.....	.....	.....	.....	.....
Coal passers	22	35	.....	28-37	30-45	.....
Printers	35	.....	.....	.....	.....	.....
Shipwrights	25	.....	.....	.....	.....	.....
Yeomen	30-60	50	.....	35-75	.....	.....
Hospital stewards	60	.....	.....	.....	.....	.....
Hospital apprentices	30	.....	.....	.....	.....	.....
Bandmasters	52	.....	.....	.....	.....	.....
First musicians	36	.....	.....	.....	.....	.....
Musicians, first class	32	.....	.....	.....	.....	.....
Buglers	30	.....	27-34	.....	.....	.....

COMMISSARY BRANCH.

Chief commissary steward	\$70	\$75	.....	.....	.....	.....
Commissary steward	60	.....	.....	.....	.....	.....
Ships' cooks	25-55	30-50	.....	\$30-55	.....	.....
Bakers	35-45	35-75	.....	.....	.....	.....
Officers' stewards	35-60	45- 112.50	\$40	50-60	\$50	.....
Officers' cooks	30-50	40-70	25-40	45-55	40-70	\$50
Mess attendants	16-24	15-30	15-23	20-35	25-45	.....
Cabin boy	.....	.....	.....	.....	.....	35-40

[No. 115.]

STATEMENT OF HON. TRUMAN H. NEWBERRY, ASSISTANT SECRETARY OF THE NAVY—CONSOLIDATION IN DIFFERENT NAVY-YARDS.

COMMITTEE ON NAVAL AFFAIRS,
HOUSE OF REPRESENTATIVES,
Washington, D. C., Friday, March 27, 1908.

The committee met at 10.30 o'clock a. m.

Present: Representatives Foss (chairman), Butler, Roberts, Loud, Bates, Thomas, Dawson, Padgett, Gregg, Lamar, and Hobson.

Present, also, Hon. Truman H. Newberry, Assistant Secretary of the Navy.

STATEMENT OF HON. TRUMAN H. NEWBERRY, ASSISTANT SECRETARY OF THE NAVY.

The CHAIRMAN. Gentlemen, we have the Assistant Secretary of the Navy with us this morning. Mr. Secretary, some of the members desire to know how you are getting on with the matter of the consolidation in the different yards, and what you are doing in that respect.

Mr. FOSS. Do you desire to ask the Secretary some questions on the matter of the consolidation?

Mr. DAWSON. I would be very glad if he would state in his own way what steps have been taken and what steps are being taken in that direction.

Mr. NEWBERRY. Mr. Chairman, I assume that it is unnecessary to explain the conditions that have existed previously. You are all familiar with the navy-yard organization and the methods of conducting business through the various bureaus, as established, with their own shops and tools and supervising force, independently, in each yard.

Under the plan of consolidation which has been so far successfully carried out, we have simply, through the commandant, assuming that he is the general manager of a manufacturing enterprise at that point, taken all of the carpenter work, for instance, and placed all of the carpenters under the control of one master carpenter or foreman. We have the carpenter work all done under one supervision rather than under several.

I speak of the carpenter work because it is probable that there are more kinds of carpenter shops in a navy-yard than anything else, possibly, except machine shops. But without any friction and without any difficulty whatever, all the carpenter shops in the New York yard were closed except those with the most room and best equipment. And in that building now all of the carpenter work is done.

To appreciate the advantage of it you must eliminate the thought of the bureau work. That is to say, it may happen, and did happen in most cases, that the Bureau of Construction had the best facilities

for carpenter work. That is the reason why the carpenters were all put in that building; but when that was done two great things had been accomplished—first, the permanent stoppage of the unnecessary duplication of tools, and secondly, the room resulting from dispensing with the shops and tools which had become practically useless. Such tools, in rare cases, as are necessary for the amount of work to be done have been moved to the shop where the work is being done; and the saving to the Government comes in primarily in the saving of the further and continuing expense in the way of tools and shops.

We required space, which was always there, but which is now available for other and necessary purposes, and we concentrated the carpenter work.

One thing—I do not know whether it will interest the committee very much—is the effect upon the individuals at the yard. I take it for granted that the individuals, the men employed, were busy and were required to be. That being the case, there is practically no reduction of the per diem employees—the carpenters themselves. There is a reduction among the highest grades of pay of the supervising force. Where we have had five carpenter shops we would naturally have at least five quartermen, and in the largest ones we would have a foreman or master carpenter. By this system we have reduced the number of the supervising force in the higher pay, so that we have one master carpenter, and the necessary supervising force.

In order to do perfect justice to all the men whose positions were affected—that is, among the supervising force—examinations were held. For instance, the men go into the carpenter shop, which had been under the Bureau of Construction, and instead of allowing that supervising force to absorb the others, all of the men of the supervising force who were qualified for masters were permitted to take a competitive examination, so far without any serious complaint of injustice or unfairness. The fairness of the case appeals to everybody concerned. It gives a good man a chance not only to hold his place but to do better; and the men who are not so well qualified are not dropped out; they simply take minor places in the supervising force. If a man can not hold his position as a quartermen in competition he becomes a leading man; and if a leading man can not hold his position in competition as a leading man he becomes a first-class laborer. They are not dropped out, but of course in some cases their authority and control of men has become less, and so their pride is hurt; but the other side of the picture is that the best men have got to the top, and the administration of that particular branch of the work in the navy-yard has improved.

That plan in connection with the carpenter shop will apply with less force to the foundry work. As you gentlemen who have been to the yards know, that work has been done in many departments. It is now all in one shop. Whatever the title of the shop may be is of no earthly importance, because it is being done by direction of the Secretary of the Navy, and the work is being done as an entity, as a whole operation. In addition to the foundry work, which includes both foundrymen and molders, there is another branch of the foundry work which is quite as important—that is, the pattern makers; these and all the blacksmiths, all the coppersmiths, and the various and several paint shops are now in consolidated shops.

Mr. ROBERTS. Would it interfere with your remarks if I were to ask you a question at this point?

Mr. NEWBERRY. No; but I will be through in just a minute, and then I would be glad to answer any question. I have practically finished what I have to say. The New York yard is about two weeks ahead of the other yards in the work, which has been practically accomplished in the yards on this coast. I have not attempted to do more than to arrange for the two western coast yards yet, because they are jammed. The personality of the officer in charge has a good deal to do with it. If the commandant is a forceful man, much can be done. If his time is about to expire, or if he is not in sympathy with the plan, it is not as easy to accomplish results.

The plan leaves a yard like the New York yard with practically two manufacturing departments—wood working and metal working. The various machine shops in the New York yard have not been consolidated, but as consolidation is, in a measure, tentative and experimental, I think it more advisable that we should go slowly and see that it is right as we go along, rather than to have a revolution. The reason for not altering the present machine shop situation is because they perform functions that are very distinct. That is, the work required in the steam engineering machine shop is of a character with which you are familiar. Now, we have another machine shop, of the Bureau of Equipment, for instance, which does entirely different work, which you might call instrument work. That is, it does work of the finer grades and a great deal of electrical work. It is the same in the Bureau of Ordnance. It does other work which requires much greater accuracy than the general machine shop practice; and also there is some work in the Bureau of Ordnance of a peculiarly fine type and character. That leaves those machine shops (which are not large with the exception of the general machine shop) to be considered later. The tools that are being used now would all be necessary, and there is no such duplication as comes in in such a conspicuous way in carpenter work, pattern work, molding work, blacksmith work, coppersmith work, and paint shop.

That is the plan, and the results as far as we have gone have been very satisfactory.

Mr. ROBERTS. Did I understand you to say that the foundry work is done in one shop now?

Mr. NEWBERRY. All of the foundry work.

Mr. ROBERTS. And the carpenter work?

Mr. NEWBERRY. I can explain that by differentiating. When I say one shop, I mean under one general control.

Mr. ROBERTS. You do not mean in one building, necessarily?

Mr. NEWBERRY. Not necessarily in one building; because we have steel-casting plants and brass-casting plants and iron-casting plants.

Mr. ROBERTS. Is it possible under this plan that you have started, to bring several of these hitherto independent shops under one roof so as to get for something else room that is now being used for a foundry or a carpenter shop?

Mr. NEWBERRY. Without any increase in the present buildings, we have gained a great deal of room. Congress has liberally supplied buildings for future extensions, and there have been in many cases a few tools put in; and we await an increase of business which does not come. By this method of consolidation the space is there

for such other purposes as may from time to time arise. We do not take anything away, but it seems to me that it will require less increase of buildings for some years.

Mr. ROBERTS. Then one result of the system now adopted will probably be fewer buildings in the future.

Mr. NEWBERRY. For some years to come. I should think so; and then when we do require a building it will be there. In most cases they are liberally supplied with buildings.

Mr. DAWSON. Do I understand that this consolidation was first adopted in the Brooklyn yard?

Mr. NEWBERRY. Yes; I put it there first.

Mr. DAWSON. And how long has it been in operation there?

Mr. NEWBERRY. About sixty days.

Mr. DAWSON. Has it been in operation long enough to make any estimate as to what saving it will effect?

Mr. NEWBERRY. No; and I would not expect to until the end of six months. As to the saving, I want to be understood as saying that there is no great saving in the number of employees. The laboring men were all of them busy or should have been busy. The saving will be the saving in the purchase of duplicate tools and in the economy of room, and incidentally a saving in the supervision of the men—the supervising force.

Mr. LOUD. Would it not be expected in times when work is slack, that where there are five shops, each one will be trying to keep the organization and to make a little work go as far as they can? Under one head there will be a material saving in that way, I suppose.

Mr. NEWBERRY. I want to be clearly understood as not criticising at all what has been done by my predecessors or by the administration of the Navy before. Those things which are manifest I do not care to comment on.

I want now to touch on the appropriations. Heretofore you appropriated in Washington for so many clerks in one bureau, so many clerks in another, and so many in another, until the pending legislation. It is corrected in the present legislation. At the present day we have men in one office who are on the pay rolls in other offices. The Secretary's office will have men who are carried on the rolls of the Paymaster-General's office, and vice versa. That is because of the peculiarity of the individual, he being more suited for some work than for others. That is relieved simply by a transfer of the funds, in accounting, which does not change anything in the law or the final result of the distribution of the money.

So, in the navy-yard, the work for the different parts of the ship, the supervision of which is under different bureaus, will be performed, under this consolidation, by the men required. For carpenter work, for instance, you go there and file your order, just as you would in an outside carpenter shop. The order is dated and placed on the file, and the work is performed in the order in which the requests for work are filed, with the one exception that the commandant, in case of emergency, can give precedence to some of the more urgent work. But in all other cases, regardless of where it comes from (and this carpenter work may be and is to-day in most places under the Bureau of Construction and Repair), the work in that building is performed in the order in which the requests for work have been filed on its public file, so that there is no doing work for what they used to call

their "own" department. There is no "own" department. It is the carpenter shop of the navy-yard, and it does such work as the case may require.

Mr. ROBERTS. Will not one result be to compel the commandant to keep in closer touch, and be more active in the yards?

Mr. NEWBERRY. It certainly will. It will be a most beneficial thing, too.

Mr. ROBERTS. What do you anticipate will be the future effect upon the number of men in the yards? Perhaps you have touched on that before I came in. Will it result in a material reduction of the number of men in the yards?

Mr. NEWBERRY. No; I think the result will be, as the years go on, that each yard will become more efficient because they have more room and can do more work. Take the Boston yard, a most conspicuous case in the Navy Department. They have a very limited amount of land. That place to-day is jammed with buildings and stores and unnecessary things.

Mr. ROBERTS. I asked the question because I understood that there were complaints coming in from the Brooklyn yard, emanating from the men, against this system, they believing that it was going to reduce the number of men employed.

Mr. NEWBERRY. I have carefully said that I do not think it will reduce the number of men. I think as time goes on it will increase the number of men employed, because we have the buildings there to put to more uses in construction work than at present. If we vacate one carpenter shop we have a vacated carpenter shop, and more ships can come there, and more work can be done, when it is required.

Mr. THOMAS. You would save in labor if you could, would you not?

Mr. NEWBERRY. Yes; I would, by all means.

Mr. THOMAS. I want to ask you two or three questions here that I could not get in before. I have been glad to hear what you have said about the consolidation, because I am much interested in it. I understand that you are running three turns down at this navy-yard here, at present.

Mr. NEWBERRY. You are talking about the gun factory?

Mr. THOMAS. I am talking about the Washington Navy-Yard.

Mr. NEWBERRY. Yes. That, in a measure, should not be confused with any other navy-yard, because it is not a navy-yard, in a sense.

Mr. THOMAS. Why do you have three turns running in these slack times?

Mr. NEWBERRY. The three turns would be running in some particular gun shop, to avoid what the Court of Claims has allowed in the Indiana case as a real demurrage. In other words, we are required to furnish guns for the ships under contract. Two or three years ago the Secretary of the Navy ordered the work to be brought up to date. It was two years behind time. It has been brought up to date, and within a short period the actual work at the gun foundry will be materially decreased, because they have caught up.

Mr. THOMAS. But you are running three turns. You see you are not caught up with the work in all the departments.

Mr. NEWBERRY. Not at all. We need guns to put on the ships.

Mr. THOMAS. For instance, the foundry.

Mr. NEWBERRY. What about it?

Mr. THOMAS. Is there any real reason why you should run three turns in the foundry?

Mr. NEWBERRY. Yes; because we need the castings that come out of the foundry. A very necessary part of a gun is the gun carriage, and such parts of it as are required to be cast can be cast in the yard. That is the very essence of the work in that navy-yard—the castings that they get for the gun carriages to carry on the work in the machine shop.

Mr. DAWSON. Will you put into your hearing a copy of the order to the commandant of the Brooklyn yard which put the system into operation?

Mr. NEWBERRY. Yes; I have not got it here.

Mr. DAWSON. You can put it in?

Mr. NEWBERRY. Yes. There are a lot of orders, you know. There is not any one order. There will be one order to do one thing at a time. I have gone on step by step to do it.

Mr. DAWSON. Please include them all.

(The orders referred to will be found at the end of Mr. Newberry's remarks.)

Mr. LOUD. Is there not some part of the work which can be in some way specialized? I have in mind the making of new boilers—not boiler repairs, because every yard must have a force to repair boilers; but when it comes to putting in the outfit of the boilers in the ship, must every yard be equipped for the building of new boilers?

Mr. NEWBERRY. Certainly not.

Mr. LOUD. Would it not be better to have the ship come to a yard that has a boiler plant to have them put on? In the Boston plant I understand that they built only one set of boilers for the *Yankee*, and because they only built one, it is complained that the shop is not big enough. They say it is a slave shop. They established a magnificent plant at Portsmouth—

Mr. NEWBERRY. I do not think there is a boiler plant capable of doing the work on the *Yankee* boilers at the Portsmouth yard.

Mr. LOUD. I know, but they are getting it ready.

Mr. NEWBERRY. I did what you have said. I sent the ship to the yard to get the boilers, instead of having the boilers sent to the ship. That is to save money.

Mr. DAWSON. Do I understand that Admiral Goodrich has been detailed to visit the various yards and to put the system in operation?

Mr. NEWBERRY. What I directed him to do was this: The New York yard has progressed to such a state that the advice and direction of Admiral Goodrich would be very helpful at Norfolk. I directed him to go to Norfolk and to stop at League Island, and explain to the commandants what he had done, and report as to the steps taken at those two places and the progress made. That is all.

Mr. BATES. Mr. Secretary, I understand, then, that the greatest benefit that is being derived from this new order of things, or this change that is going into operation, is economy of space, which is a very important factor on account of the crowded condition of our navy-yards; and also doing away with the duplication of expensive machinery and its installation and maintenance. Those are the items which count very greatly in this new order of things?

Mr. NEWBERRY. Yes. Of course no real comparative account could be made of the saving in labor, because of the limited number of yards and the increasing number of vessels the work at the yards has got to be increased.

Mr. BATES. Precisely; but that does not aim at the reduction of the force of men, and will affect it very little, if any?

Mr. NEWBERRY. Yes; because there must be, when the fleet returns and with the increasing number of vessels, more and more work for the navy-yards.

Mr. ROBERTS. Let me ask this question in connection with that. So far the change over to the new order of things has not resulted in any diminution of the force of men, has it?

Mr. NEWBERRY. Not for that reason. Incidentally there has been and will be for many months a gradual falling off of the work.

Mr. ROBERTS. But the falling off in the force in the Atlantic yards in the future will be due to the lack of work because the fleet is away?

Mr. NEWBERRY. Yes.

Mr. ROBERTS. And not to the change in the yards at all?

Mr. NEWBERRY. No.

Mr. DAWSON. How long, Mr. Secretary, do you think this system ought to be allowed to operate before you could give to Congress an adequate report of the results and effects of it?

Mr. NEWBERRY. I think at the next session of Congress we can give a very fair idea of the situation to you.

Mr. DAWSON. You of course recall that several members of the committee have introduced bills looking to this question of the naval administration. I do not think there is any disposition on the part of the authors of those bills to crowd the matter unreasonably, and inasmuch as the Navy Department itself has taken what some of us regard as a step in the right direction, of course we are all anxious to see the operation of that before undertaking anything that would overturn it.

Mr. NEWBERRY. The Secretary of the Navy has authority now to do practically everything that any bill that I have read suggests, and his authority should not be limited.

Mr. THOMAS. But will he do it?

Mr. NEWBERRY. This much has been done.

Mr. THOMAS. But will he continue to do it?

Mr. NEWBERRY. I do not know.

Mr. BATES. The consolidation of the power plants was a matter that was up two or three years ago, was it not?

Mr. NEWBERRY. The consolidation of power plants in navy-yards was started three or four years ago, but, unfortunately, through a change in the bureau which was by Congress charged with the work, there have been three chiefs of that bureau in the three years I have been there. Naturally that must result in some delay.

Mr. BUTLER. Is that consolidation being made?

Mr. NEWBERRY. It is being made in every navy-yard. It was started in every one at once in 1904.

Mr. BUTLER. That is a subject that I have been interested in—trying to get the power plants consolidated. Will that system that we have inaugurated for a consolidation be of use to you in your plan?

Mr. NEWBERRY. In my time? I hope so.

Mr. BUTLER. In your plan, I say. I hope your time will be very long. I say in your plan, your programme.

Mr. NEWBERRY. Yes; it is in exact accordance with the plans of the Department. Our plans are working out along the same lines. We are consolidating wherever we can and saving money in all kinds of ways.

Mr. BUTLER. Well, we will help you as much as we can on that.

Mr. ROBERTS. Do you anticipate that this consolidation will require any change in the manner of appropriating money hereafter?

Mr. NEWBERRY. Possibly, another year, I would suggest a change in the appropriations which would make them more easily understood.

Mr. ROBERTS. That is what I was getting at. That will naturally follow if this plan works successfully, will it not?

Mr. NEWBERRY. Yes.

Mr. HOBSON. Are precautions being taken in this consolidation of power plants to prevent the changes taking place before it is advisable, in order to get the best use of the existing plants? In other words, is there any tendency to put out of use or to change an existing plant that is still efficient in the matter of power, with a corresponding outlay of money, which could be economically postponed?

Mr. NEWBERRY. As to being economically postponed, I can not answer. As to the general consolidation of power plants, putting out of commission existing satisfactory plants, I will speak only of the Boston yard as a conspicuous case. It will put out of commission a most efficient plant, eventually. It is now being used in doing most of the work, as most all that class of our plants are now doing.

Mr. HOBSON. In case retrenchment would have to be made this year along any line, or delays in the outlay of appropriations, do you think the postponement of the putting out of use of efficient plants in the power consolidation would be an advisable line in which to bring about the delays?

Mr. NEWBERRY. I do not, Mr. Hobson, for this reason: Take that case alone. The amount of money already expended in the Boston yard toward the new plant has resulted in the installation of the boilers, most of the generators, and of course the erection of the building. The completion of that plant is an absolute necessity for that yard. That is, it is being run now literally from hand to mouth. One plant that is doing most of the work in the yard is strained to the utmost, and all power equipment in the yard is awaiting the early completion of this plant in order to couple up with it and to shut down their worn-out boilers and engines that are just being patched together until this power plant is completed. I do not want to be understood as criticising, as I said before, the scheme. I think it was rushed into. Construction and repair has an excellent plant at the Boston yards, and parts of it will be used somewhere else. But the work in progress ought to be completed at the earliest possible date, in my opinion, to get the best results.

The CHAIRMAN. If there are no further questions, we will call this hearing closed.

(The orders putting the system of consolidation into effect at the Brooklyn Navy-Yard are as follows:)

No. Sec. 2190A2]

NAVY-YARD,
New York, December 26, 1907.

SIR: 1. I have the honor to recommend that all patterns at this yard be made by the department of steam engineering; if for other departments, by a transfer of labor.

2. The maximum number of pattern makers employed here in each department during the past six months is:

Steam engineering.....	42 (now 41)
Construction and repair.....	13 (now 10)
Equipment.....	9 (now 4)
Ordnance.....	1 (now 1)
Total.....	65 (now 56)

3. This suggestion is made in full knowledge of the fact that the steam engineering pattern shop will be somewhat crowded, and that construction and repair has a larger and better equipped shop. These considerations, in my judgment, can not outweigh the one fact that steam engineering employs, in this capacity, four times as many men as construction and repair.

4. To meet the objection that work for other departments may be sidetracked, steam engineering should keep an open list of patterns wanted, showing date of request, receipt of blueprint, etc. In special cases, or cases of emergency, the commandant may be trusted to decide the question of precedence.

5. It is unnecessary to point out the steadying effect of such a consolidation, making, as it will, for permanence of the force employed and permitting the retention of men of the very highest skill and largest output.

Very respectfully,

C. F. GOODRICH,
Rear-Admiral, U. S. Navy,
Commandant Navy-Yard and Station.

The SECRETARY OF THE NAVY,
Washington, D. C.

[First indorsement.]

NAVY DEPARTMENT, *January 29, 1908.*

Respectfully referred to the Bureau of Construction and Repair. It is the intention of the Department to consolidate the pattern shops, painting, and carpentering at the navy-yard, New York, and it desires comments and suggestions from the various bureaus concerned before the formal order is promulgated, it being understood that in the beginning the plan must be experimental and must in a measure be left to the discretion of the commandant to work out. Copies of these letters with similar indorsements have been referred to the Bureaus of Yards and Docks, Steam Engineering, Ordnance, and Equipment.

TRUMAN H. NEWBERRY,
Assistant Secretary.

Sec. 2190A3.] NAVY-YARD, *New York, January 25, 1908.*

SIR: 1. Referring to my letter, Sec. 2190A2, dated December 26, 1907, in which I recommend that all patterns at this yard be made in one shop, I find that the steam engineering pattern shop is as large as that of construction and repair. In equipment too, the former is but little inferior, so that no overwhelming reasons exist for changing my recommendation.

2. In further development of the policy of concentration of labor which, I understand, the Department is anxious to see adopted with

prudent dispatch, I have the honor to suggest that all painters at this yard be employed by construction and repair, the services of any when required by other departments, to be effected by a transfer of labor. As in the case of pattern makers, I believe that the largest number should dominate the situation.

3. The present figures for painters are as follows:

Department.	Number.	Per cent.
Construction and repair.....	53	79
Yards and docks.....	10	15
Equipment.....	3	5
Steam engineering.....	1	1
Total.....	67	100

4. Also, I recommend that all carpentering be done by construction and repair, and the qualifying term on the schedule of wages (carpenters, house; joiners, house; joiners, ship) be abolished so that only "carpenters" and "joiners" be retained. There are no "ship carpenters" scheduled, and the distinction between ship and house joiners is purely academic. A ship joiner can do perfectly well all the work now done in this yard by house carpenters and house joiners.

5. The present figures for woodworkers employed here are:

Department.	House carpen- ters.	House joiners.	Ship joiners.	Ship- wright.	Total.	Per cent.
Construction and repair.....			60	42	111	76
Ordnance.....			12		12	8
Steam engineering.....	4	1	4		9	6
Yards and docks.....	2	6			8	6
Equipment.....	5				5	4
Total.....	11	7	85	42	145	100

6. It is, of course, held that, for the time being, the commandant should be empowered to control the operations of the proposed scheme and to prescribe its details. During this period rules and methods would be evolved to be submitted later to the Department for its approval before final adoption.

Very respectfully,

C. F. GOODRICH,
Rear-Admiral, U. S. Navy,
Commandant Navy-Yard and Station.

The SECRETARY OF THE NAVY,
Washington, D. C.

25881.]

NAVY DEPARTMENT,
Washington, February 4, 1908.

SIR: Referring to your letters Nos. 2190A2 and 2190A3 of December 26, 1907, and January 25, 1908, respectively, recommending the consolidation of all pattern work under the department of steam engineering and all painting and carpentering under the department of construction and repair at the navy-yard under your command, the Department approves your recommendations as contained in the

letters above referred to, and directs the consolidation of all pattern work at the navy-yard, New York, under the department of steam engineering and all carpenter, joiner, and painting work under the department of construction and repair, work for other departments of the yard in either of the above-mentioned trades to be done by transfer of labor.

All the force, including foremen, quartermen, and leadingmen in each trade will be transferred to the yard department under which the work of the trade is placed; foremen, quartermen, and leadingmen to be rerated as soon as it is determined what ratings are necessary.

The commandant is charged with the direction of the transfer and the determination of all details. Should any conflict of opinion between yard departments occur in connection with this experimental consolidation, the commandant will settle the controversy and then make immediate report to the Department on the subject of the controversy and the rulings made by him to settle the same. The head of each department concerned shall make a report to the commandant on the working of the system June 30, 1908. The commandant will forward such reports with his own comments and any further recommendation deemed desirable by him to the Department for its consideration.

Very respectfully,

TRUMAN H. NEWBERRY,
Acting Secretary.

The COMMANDANT,
Navy-Yard, New York, N. Y.

An order to increase the efficiency of navy-yards.

25881-3.]

NAVY DEPARTMENT,
Washington, February 4, 1908.

The Department has experimentally consolidated all carpenter shops, paint shops, and pattern shops at the New York Navy-Yard, and desires that you investigate and report to the Department the conditions existing in the yard under your command in the three branches of industry referred to, and recommend to the Department a plan whereby this system may be tentatively installed by you.

In determining the method in the New York yard attention was paid to the largest and most available shop and the number of employees on the rolls of each department of the industry referred to.

Information as to further details will be secured by corresponding directly with the commandant of the New York Navy-Yard.

TRUMAN H. NEWBERRY,
Acting Secretary.

1846-CC.]

DEPARTMENT OF THE NAVY,
BUREAU OF STEAM ENGINEERING,
Washington, D. C., January 31, 1908.

SIR: 1. Referring to the Department's first indorsement, No. 25881, of January 29, 1908, on two letters from the commandant of

the navy-yard, New York, viz, 2190A2, of December 26, 1907, and 2190A3, of January 25, 1908, both on the subject of shop consolidation at the New York Navy-Yard, this Bureau is of the opinion that the plan proposed by the commandant of the navy-yard, that all patterns for the various departments at that yard be made by the department of steam engineering and that all painting and carpenter work be done in the same manner by construction and repair, is a plan worthy of painstaking trial, and the same will have this Bureau's hearty support.

2. The reasons for the change proposed are clearly stated by the commandant, and this Bureau believes that the details for the working out of the scheme may safely be left to him.

Very respectfully,

C. W. RAE,

Engineer in Chief, U. S. Navy, Chief of Bureau.

The SECRETARY OF THE NAVY.

11788A 20 & 21.]

NAVY DEPARTMENT,
BUREAU OF CONSTRUCTION AND REPAIR,
Washington, D. C., February 1, 1908.

SIR: 1. Referring to the Department's first indorsement, No. 25881, dated January 29, 1908, on two letters from the commandant, navy-yard, New York, N. Y., Nos. 2190A2, dated December 26, 1907, and 2190A3, dated January 25, 1908, concerning the consolidation of pattern work under the steam engineering department, and of carpenter, joiner, and painting work under the construction and repair department, and requesting comments and suggestions, the Bureau has to make the following recommendations:

First. That all the force, including foremen, quartermen, and leadingmen in each trade, be transferred to the yard department under which the work of the trade is placed; foremen, quartermen, and leadingmen to be rerated as soon as it is determined what ratings are necessary.

Second. That the commandant be charged with the direction of the transfer and the determination of all details. Also that, should any conflict of opinion between yard departments occur in connection with this experimental consolidation, the commandant is to settle the controversy and then make immediate report to the Navy Department on the subject of controversy and the rulings made by him to settle it.

Third. That at the end of six months from the beginning of the consolidations in question each head of yard department concerned make a report to the commandant on the working of the system, and that the commandant forward such reports, with his own comments and any further recommendations deemed desirable by him, to the Department for its consideration.

Very respectfully,

W. L. CAPPS,

Chief Constructor, U. S. Navy, Chief of Bureau.

The SECRETARY OF THE NAVY.

[Second indorsement.]

1. Respectfully returned to the Department.
2. The Bureau of Ordnance heartily concurs in any consolidation or change whereby both efficiency and economy can be effected, and approves of the consolidation of the pattern shops, painting, and carpentering shops at the New York Navy-Yard, so far as its interests are concerned.
3. The Bureau also considers it prudent to effect such changes cautiously and to regard them as experimental for a length of time sufficient to fully demonstrate whether or not they succeed in providing the desired efficiency and economy.

N. E. MASON,
Chief of Bureau of Ordnance.

9084HLT.]

DEPARTMENT OF THE NAVY,
BUREAU OF YARDS AND DOCKS,
Washington, D. C., February 1, 1908.

SIR: Complying with the Department's first indorsement of January 29, No. 25881, in which it is stated as the intention of the Department to consolidate pattern shops, painting, and carpentering at the navy-yard, New York, and that it desires comments and suggestions from the various bureaus concerned before a formal order is promulgated, the Bureau has the honor to state that it strongly favors consolidation where it will result in greater economy, efficiency, and expedition in the dispatch of work at navy-yards.

2. Until the receipt of the Department's indorsement the Bureau has had in mind, and given especial consideration to, the consolidation of plants (and on several occasions has had the honor of discussing this phase of consolidation with the Department and receiving instructions from the Department with this end in view). Consolidation of plants has seemed to the Bureau as offering the proper relief in the way of securing greater economy, efficiency, and expedition. The Bureau, until this time, has had no other plan in view. Pattern shops, paint shops, and foundries would naturally first suggest themselves as being susceptible of consolidation, and machine shops, metal-working shops, and carpentering or wood-working shops to a certain extent. In this connection the Bureau invites attention to the fact that there are two technical shore-duty corps in the Navy, the corps of naval constructors and the civil engineers. The duties of the construction corps pertain to designing, constructing, and repairing ships and floating craft—everything, in fact, except the designing and building of engines, boilers, etc., which come under the Bureau of Steam Engineering, and various equipment under the Bureau of Equipment. The corps of civil engineers, under the Bureau of Yards and Docks, are charged with all the duties of designing, building, and repairing everything ashore in navy-yards except the machinery plants of the several departments. Therefore it would appear that in order to relieve the line corps as much as possible so that they may be available for sea duty, the plan to follow in putting into effect any scheme of consolidation in navy-yards should be with a view of, as far as possible, using the Bureaus of Construction and Repair and Yards and Docks to take over work now performed by

other departments. In the case of the Bureau of Steam Engineering, on account of the preponderance of foundry and pattern work coming under that Bureau, all of that work should be performed by that Bureau.

3. In regard to the action now proposed by the Department to immediately consolidate pattern shops, painting, and carpentering, this Bureau sees many advantages in the consolidation of pattern shops, if the pattern shop of the steam engineering department is sufficiently large to properly handle the pattern work of the whole yard, since pattern makers practically work all the time in a shop and are all of one rating. In regard to painting, the Bureau sees many advantages and no objections, except that the men work in the main out of the shop and their work requires outside supervision by the department responsible for the work, and that the department requiring the services of painters is one step further removed from the source of supply—that is, the labor board. In regard to carpentering, the Bureau does not see as many advantages as in the case of pattern shops and painters. It appears that it is the intention of the Department to put all men of those allied trades under one head, which will tend toward confusion to a certain extent. It removes the department requiring the labor one step further from the source of supply—that is to say, the labor board; it puts under the custody of one department men who perform work on a class of work of which that department has little experience. This Bureau believes that in the case of carpentering it would be simpler and more satisfactory if the division were for work afloat and work ashore, which would mean that all house carpenters and joiners would be under the department of yards and docks, and all ship carpenters and joiners under the department of construction and repair. This Bureau believes that the ratings "house carpenter" and "house joiner" are not both needed, but that one should be retained. The Bureau does not concur in the statement of the commandant, navy-yard, New York, that the distinction between ship and house joiners is purely academic. On the contrary, it believes there is vastly more difference between house joiner and ship joiner than there is between house carpenter and house joiner.

4. The Bureau believes that the time for the consolidation of plants has come, and will use its best endeavors to make the plan which the Department deems best a success.

Very respectfully,

R. C. HOLLYDAY,
Chief of Bureau.

The SECRETARY OF THE NAVY.

170477.]

DEPARTMENT OF THE NAVY,
BUREAU OF EQUIPMENT,
Washington, D. C., February 5, 1908.

SIR: 1. Referring to Department's indorsement No. 25881 of January 29, 1908, attached to copy of letters No. sec. 2190A2 of December 26, 1907, and January 25, 1908, from the commandant, navy-yard, New York, recommending consolidation of pattern shops in the department of steam engineering, and carpentering and painting in the department of construction and repair, which stated that

it is the intention to consolidate the shops mentioned, and calling for comment and suggestions.

2. The Bureau suggests as follows:

(a) The advisability of transferring to the consolidated shops all the men employed in the several shops.

(b) The necessity of leaving the details of adjustment in the hands of the commandant, in order to give the scheme the fairest trial.

(c) That the plan be tried for a definite period, say three months; the heads of all the yard departments to keep record of time and cost and general results in comparison with existing conditions, and reports from them and from the commandant to be submitted at the end of the probationary period.

Very respectfully,

WM. S. COWLES,
Chief of Bureau of Equipment.

The SECRETARY OF THE NAVY.

No. sec. 2190A5.]

NAVY-YARD,
New York, February 8, 1908.

SIR: 1. In carrying out the Department's orders of the 4th instant, directing the consolidation of certain trades in this yard, and, incidentally, the elimination of unnecessary shops, I have the honor to state that I shall find it necessary to direct the transfer (temporary or permanent as the case may be) of certain machine tools from one yard shop to another.

2. I understand that this power is implied in the Department's instructions to the commandant; nevertheless I mention the necessity, in order that the Department may be aware of the circumstances should any objection be raised, or protest entered, against the commandant's order.

3. Specifically, some additional tools can be advantageously installed in the steam engineering pattern shop, and rather than delay the work, or to buy such tools, I purpose directing their transfer from the pattern shop of the department of construction and repair.

4. Unless I receive instructions to the contrary, I shall assume that my view is in accordance with the Department's wishes.

Very respectfully,

C. F. GOODRICH,
Rear-Admiral, U. S. Navy,
Commandant Navy-Yard and Station.

The SECRETARY OF THE NAVY,
Washington, D. C.

25881-5.]

NAVY DEPARTMENT,
Washington, February 12, 1908.

SIR: Referring to your letter, 2190A5, of February 8, the Department approves of your action in transferring certain machine tools from one yard shop to another.

Very respectfully,

TRUMAN H. NEWBERRY,
Assistant Secretary.

The COMMANDANT, Navy-Yard, New York.

25881.]

NAVY DEPARTMENT,
Washington, February 28, 1908.

SIR: Referring to the Department's letter No. 25881 of the 4th instant, relative to the consolidation of certain work at the navy-yard under your command, the Department desires an expression of opinion from you as to the practicability and advisability of consolidating all foundry work at the navy-yard, New York, under the department of steam engineering.

Very respectfully,

TRUMAN H. NEWBERRY,
*Assistant Secretary.*The COMMANDANT,
Navy-Yard, New York, N. Y.

No. 2190B-1-07.]

NAVY-YARD, *New York, February 29, 1908.*

SIR: 1. Replying to the Department's inquiry of yesterday, No. 25881, I have the honor to state that I am attentively studying the question it presents, in order within a few days to submit a formal recommendation, which will undoubtedly be as follows, viz:

- (a) All iron casting to be done in the steam engineering foundry.
- (b) All brass casting to be done in the steam engineering brass foundry.
- (c) All blacksmith work to be done by construction and repair.
- (d) All coppersmith work to be done by steam engineering.

2. As was expected, since the consolidation of the four shops already directed by the Department, a number of small details have cropped up, necessitating consideration and adjustment. This adjustment is very nearly complete—will be so in a few days. With the experience thus gained, it will be easy to undertake still larger measures in absolute assurance of success. I have felt that my best service in interpreting and carrying out the Department's desires would be to go slowly at the outset, passing from one secure position to another so discreetly that well-founded criticism could not be directed against the scheme.

3. Two of the topics now under consideration by the yard departments and to be settled early next week in a conference of the responsible heads with the commandant are: First, the proper shape a request for transfer of labor should take and how it can be made to do its work in the shortest possible time and in the shortest possible manner consistent with efficiency and a proper accountability; and, second, a just prorating of power and other charges. I mention these, in themselves of apparently small consequence, to show that, in my opinion, the Department has acted with great wisdom in trying the first experiment on a small scale to obtain data applicable to the next venture.

Very respectfully,

C. F. GOODRICH,
Rear-Admiral, U. S. Navy,
*Commandant Navy-Yard and Station.*The SECRETARY OF THE NAVY,
Washington, D. C.

25881.]

NAVY DEPARTMENT,
Washington, March 3, 1908.

SIR: The Department has to acknowledge the receipt of your letter No. 2190B-1-07, of the 29th ultimo, relative to the proposed rearrangement of the foundry work at the navy-yard under your command, and heartily indorse your policy to go slowly at the outset and not to take up additional plans of consolidation until the present ones under way have been thoroughly perfected.

Very respectfully,

TRUMAN H. NEWBERRY,
Assistant Secretary.

The COMMANDANT,
Navy-Yard, New York, N. Y.

Sec. 2190B-1-2-07.] NAVY-YARD, New York, March 11, 1908.

SIR: In further reference to the Department's desire to effect, wherever practicable, an advantageous consolidation of yard shops and in particular relation to its letter of February 28, 1908, No. 25881, I have the honor to recommend as follows, viz:

(a) All blacksmith work to be done in the construction and repair blacksmith shop.

(b) All iron casting to be done in the steam engineering iron foundry.

(c) All brass and composition casting to be done in the steam engineering brass foundry.

(d) All coppersmith work to be done in the steam engineering coppersmith shop.

2. The shops designated above are of ample capacity and equipment to assume the additional burden.

3. It may be necessary to transfer a very few machines.

4. The Department is reminded that construction and repair has here a steel casting plant capable of pouring up to 2 tons at a time. It is not proposed to touch this plant at present.

5. The existing distribution of the force concerned is shown in inclosure A.

6. The proposed consolidation will reduce the force in the steel foundry by about a dozen men—molders and helpers. The molders left there should be rerated from "green sand" to steel.

7. The position of master ship smith should be awarded after competitive examination between the present master ship smith and master blacksmith.

8. The position of master molder should be awarded after competitive examination between the present master molder (steam engineering) and the three quartermen molders in construction and repair, steam engineering, and equipment.

9. As the only coppersmiths master and leading man are already in steam engineering, there seems to be no present necessity for a change in supervision.

Very respectfully,

C. F. GOODRICH,
Rear-Admiral, U. S. Navy,
Commandant Navy Yard and Station.

The SECRETARY OF THE NAVY,
Washington, D. C.

[Inclosure A.]

BLACKSMITHING.

	Construc- tion and repair.	Steam en- gineering.	Equip- ment.	Yards and docks.	Ordinance.
Master shipsmith	1				
Leadingman shipsmith	1				
Shipsmith:					
First class	5			1	
Second class	4				
Fourth class	1				
Apprentices	4				
Helpers—					
First class	27			2	2
Second class	6				
Third class	1				
Anglesmiths:					
First class	3				
Fourth class	1				
Master blacksmith		1			
Blacksmiths, machine:					
First class		4			2
Second class		4			
Blacksmith:					
First class			3	1	
Apprentices		2			
Helpers—					
First class		13			
Second class		2			
Furnacemen, blacksmith, second class		1			
Hammermen, first class		3			
Forgers:					
Heavy, first class	1	2			
Drop—					
First class	1				
Second class	2				
Total	58	32	3	4	4

NOTE.—Construction and repair has had as many as 119 men employed at one time on this class of work.

COPPERSMITHING.

	Construc- tion and repair.	Steam engineer- ing.	Equip- ment.
Master coppersmith		1	
Leading man coppersmith		1	
Coppersmiths:			
First class	4	17	2
Second class		3	
Third class	1		
Apprentices		2	
Helpers—			
First class		18	
Second class		4	
Tinner		1	
Laborer, first class		1	
Total	5	48	2

IRON AND BRASS FOUNDRY.

Master molder		1	
Quartermen molder	1	1	1
Molder, loam:			
First class		14	3
Second class		2	12
Molder, green sand:			
First class	9	10	
Second class	1	11	
Fourth class		1	
Molder, steel:			
First class	6		
Second class	2		
Molder, apprentices	2	3	1
Helper, molders:			
First class	9	41	
Second class	2	2	

IRON AND BRASS FOUNDRING—Continued.

	Construc- tion and repair.	Steam engineer- ing.	Equip- ment.
Core makers:			
First class.....		4	2
Second class.....	1	1	
Third class.....	1		
Furnace men, foundry:			
First class.....	2	3	
Second class.....		1	
Iron finisher, second class.....		1	
Laborers, first class.....		4	
Brick masons.....		1	
Crane man:			
First class.....		1	
Second class.....		1	
Master steel maker.....	1		
Total.....	37	103	19

25881-1.]

NAVY DEPARTMENT,
Washington, March 17, 1908.

SIR: Referring to your letter No. sec. 2190 B-1, 2, 07, of the 11th instant, submitting further recommendations relative to the consolidation of work at the navy-yard under your command, you are informed that the Department approves your recommendations as contained in the above-mentioned letter and directs the consolidation of (a) all blacksmith work to be done in the construction and repair blacksmith shop; (b) all iron casting to be done in the steam engineering iron foundry; (c) all brass and composition casting to be done in the steam engineering brass foundry; and (d) all copper-smith work to be done in the steam engineering coppersmith shop. Work for other departments of the yard in either of the above-mentioned trades will be done by the transfer of labor.

All the force, including foremen, quartermen, and leadingmen in each trade, will be transferred to the yard department under which the work of the trade is placed; quartermen and leadingmen to be rerated as soon as it is determined what ratings are necessary. The molders left in the steel foundry after this consolidation will be rerated from "green sand" to steel. The selection of master ship-smith in charge of the consolidated shops will be determined by competitive examination, limited to the present master shipsmith and master blacksmith. The selection of master molder will be determined by competitive examination between the present master molder (steam engineering) and the three quartermen molders in construction and repair, steam engineering, and equipment departments. As the only coppersmiths master and leadingman are already in the department of steam engineering, your suggestion that there appears to be no present necessity in change of supervision is approved.

The commandant is charged with the direction of the above-mentioned transfers and the determination of all details. Should any conflict of opinion between yard departments occur in connection with this experimental consolidation, the commandant will settle the controversy and then make immediate report to the Department on the subject of the controversy and the rulings made by him to settle the same. The head of each department concerned shall make a report to the commandant on the working of the system

1030

June 30, 1908. The commandant will forward such reports with his own comment and any further recommendation deemed desirable by him, to the Department for its consideration.

Very respectfully,

TRUMAN H. NEWBERRY,
Assistant Secretary.

The COMMANDANT,
Navy-Yard, New York, N. Y.

[No. 116.]

**STATEMENT OF HON. TRUMAN H. NEWBERRY, ASSISTANT
SECRETARY OF THE NAVY—THE PERSONNEL OF THE NAVY.**

COMMITTEE ON NAVAL AFFAIRS,
HOUSE OF REPRESENTATIVES,
Washington, D. C., Friday, March 27, 1908.

The committee met at 11.30 o'clock a. m.

Present: Representatives Foss (chairman), Butler, Roberts, Loud, Bates, Thomas, Dawson, Padgett, Gregg, Lamar, and Hobson.

Present, also, Hon. Truman H. Newberry, Assistant Secretary of the Navy.

**STATEMENT OF HON. TRUMAN H. NEWBERRY, ASSISTANT SEC-
RETARY OF THE NAVY.**

The CHAIRMAN. We desire to take up now, Mr. Secretary, the subject of the personnel of the Navy. I may say that this is more properly a matter which comes before the Subcommittee on Organization, Rank, and Pay; but in consequence of the importance of the subject and the fact that we desire the Assistant Secretary of the Navy to be heard on the subject, I have asked him to appear here before the full committee. The Assistant Secretary of the Navy was, as you know, gentlemen, appointed as chairman of the personnel board a year ago to look into the question of the personnel.

Now, Mr. Secretary, if you will take up that subject in your own way we would be very glad to hear from you.

Mr. NEWBERRY. The subject of the personnel of the Navy I have not made any special preparation to discuss, as I told you over the telephone. The matter was seriously considered, primarily, in the Bureau of Navigation, because of the lack of officers two or three years ago—nearly three years ago—and it resulted in the Secretary of the Navy appointing a board of which I was made chairman—not for any other reason than to have a presiding officer. That board was composed of men of experience in the Navy, both of the older and younger men, and representing those who had given considerable time and thought to the situation. That board was asked to report on a system of promotion which would bring officers to command rank at earlier years than at present. That was because under our present organization and present law our admirals become rear-admirals and are thereby fitted to command divisions, squadrons, and fleets at the average age of 60 or a little over, and our captains become captains at the average age of about 55 or a little over. The result is that as the retiring age is 62 for admirals they have but very few months to serve before they are retired. In other words, they get their experience, and then go out, and their experience is not available for the service afloat.

To explain that situation I can only say that the result of the board's finding, which was in accordance with foreign and other

practices and which are so essential to the efficiency of the personnel, upon which all our investment in our fleet depends, was to bring to the grade of admiral and captain men whose average length of service would be seven years in each grade. The reasons for that are obvious. I will not take up your time in going into that, because we spent a good deal of time in writing the report, which I do not want to read into this rather informal talk. The report of the board, I think, is very complete, and it explains in detail the reasons why it is necessary for Congress to give early attention to a condition which will continue to become worse from time to time. That is the congestion at the top in the way of promotion and the congestion at the bottom from the large increase of officers which is necessary. The situation to-day in regard to the personnel of the Navy is a very serious one because of the lack of officers to take the duties and stations which our ships require.

Mr. ROBERTS. May I interrupt you there?

Mr. NEWBERRY. Certainly.

Mr. ROBERTS. Have we before this committee the report of that personnel board, so that we can refer to it easily?

Mr. NEWBERRY. I would like to include that, if I may, without reading it.

The CHAIRMAN. Can we not put it right in here?

Mr. ROBERTS. I was going to suggest, if you have it there, that you put it in. You need not read it unless you want to.

Mr. NEWBERRY. I would like to put in the message of the President and the report of the board, with the alterations, which I will give the Secretary, and which were submitted to you because of the corrections in the statistics there.

(The papers above referred to will be found at the end of Mr. Newberry's remarks.)

Mr. NEWBERRY. I do not know that it would be advisable for me to take up your time in going on any further.

The CHAIRMAN. We would be glad to have you do so. There is no time better than the present.

Mr. NEWBERRY. There is not much more to be said about the personnel, because the situation is obvious.

Mr. ROBERTS. It is growing worse all the time, is it not, with the increase in the number of ships?

Mr. NEWBERRY. It is growing worse instead of better. A very effective piece of executive work was done when we had the commanders take secondary positions on our battle ships—that is, become executive officers.

Mr. PADGETT. May I ask you a question that is in my mind?

Mr. NEWBERRY. Certainly.

Mr. PADGETT. The congestion that you speak of at the top, in the rear-admirals, and the congestion at the bottom from the large influx of midshipmen coming in, is the trouble. Now, in the center is where you want the promotion?

Mr. NEWBERRY. No; they want a flow of promotion from the rear-admiral grades down.

Mr. PADGETT. Let me ask you this: What is your practical suggestion to accomplish that?

Mr. NEWBERRY. By placing a percentage of the officers, beginning with the rear-admirals, on a reserve list, either on their own appli-

cation or upon selection by a board. It makes no difference what their rank or station may be at the time, and they become eligible for shore duty only, and by their selection vacancies are created which are filled from the lower grades.

Mr. BUTLER. Which list do you take them from?

Mr. NEWBERRY. From all the lists, down to lieutenant.

Mr. BUTLER. From the active list as well as the retired list?

Mr. NEWBERRY. No; we do not touch the retired list at all—just the active list of the line officers.

Mr. PADGETT. In other words, if I may carry on the inquiry I started, the effect would be to increase the retired list, whether you call it that or not?

Mr. NEWBERRY. Well, it is different from the retired list. Under the law officers on the retired list can be ordered to active duty until 1912, and after that without a special act of Congress no retired officer can be given active duty. This plan creates a reserve list of officers who can not go to sea and do not go to sea, but who can take positions on shore which now active and young officers take. If you go into any—

Mr. PADGETT. Just there, on that reserve list. They would be used for shore duty, you say. How many officers have you at this time on shore duty?

Mr. NEWBERRY. That exact report is on file with the Naval Committee of the Senate, and I would rather refer to a copy of that report than to be quoted, because you would have it then accurately. I think it is a remarkably small number. It is a smaller number than have been on shore for years, and it must continue to grow smaller.

Mr. PADGETT. Now, when you fill that in with this reserve list, what would you do with the surplus reserve?

Mr. NEWBERRY. I do not think there would be any surplus reserve. There would not be enough on the reserve list to do all the duty that is now done by active officers on shore.

Mr. PADGETT. Now, to man the complement of ships that we now have we are about 1,600 or nearly 1,700 officers short on a peace basis; and that does not include the ships that are yet to go into commission after July, 1908, or 1909, as I understand it. With the increased number of ships that are coming in afterwards we would still have a greater shortage of officers. Why this congestion at the top?

Mr. NEWBERRY. Why the congestion at the top?

Mr. PADGETT. Yes; when we are short so many officers on a peace basis. Why is it that we are short 1,600 officers to command our fleet, and at the same time there is such a congestion that you can not handle the flow of officers?

Mr. NEWBERRY. Because of the law, which limits the number of officers in the grades. It is limited to a certain number in each grade, which appears on the top of the page in the Navy Register. I can not recall the number, but say there are 24 rear-admirals. There can not be any more. The only way a man can become a rear-admiral is to have one of them die or be retired.

Mr. HOBSON. In connection with that you can answer a question which I want to ask, which is, whether the first step would not be a readjustment of the numbers and grades on a percentage basis?

Mr. NEWBERRY. That is it, exactly.

Mr. HOBSON. From the top down, of the active list?

Mr. NEWBERRY. That is exactly what we have done, and which appears in that report. That is exactly what has been done, with the exception of the number of rear-admirals. There is a recommendation for three vice-admirals, and a fixed number of rear-admirals. After that the number of captains, commanders, lieutenant-commanders, lieutenants, and ensigns is fixed by percentage. It will produce exactly what you have in mind, and which is the only way in which a continuing and proper procedure of the naval rank and promotion can exist, because there will be no congestion under that system. It is a proper percentage of the total number of officers. It speaks of so many admirals, such a percentage of captains, such a percentage of commanders, such a percentage of lieutenant-commanders, etc., as will appear. I will not go into it in detail.

Mr. PADGETT. That is a matter that I was about to ask a question about.

Mr. NEWBERRY. That will appear in the report.

Mr. PADGETT. I was going to ask this. If we are now limited to 24 rear-admirals, and, for illustration, we should double that and authorize 48 rear-admirals; and if we have so many captains, and we should double that, etc., and keep them on the active list, would not that relieve the congestion that you speak of without creating what you call your reserve list?

Mr. NEWBERRY. If you will allow me to say it, you would have an unnecessary number of rear-admirals and captains by that method.

Mr. PADGETT. What I am trying to get out of my mind, and what I can not seem to do very well, is this: We are 1,600 officers short on the present complement of the ships, and we can not adjust the matter by putting some of them on a quasi retired list.

Mr. NEWBERRY. I can only answer by saying that I do not know about the missing 1,600 officers—where they are needed now.

Mr. PADGETT. The Secretary of the Navy so states.

Mr. NEWBERRY. That would be a shortage in all of the grades for all the ships. Congress does not appropriate money to put all the ships we have in commission. We have neither the number of men nor the number of officers, nor the amount of money under maintenance to support the number of ships we have. We have an effective Navy and fleet for present purposes. This bill that we propose does not propose any such number of officers as that.

Mr. LOUD. There is no such thing as a reserve list now.

Mr. NEWBERRY. No; there is not.

Mr. LOUD. It would be an entirely new classification?

Mr. NEWBERRY. Yes.

Mr. LOUD. I would like to ask whether this same classification, a reserve list, has not been had in the English navy with great success?

Mr. NEWBERRY. I think it has.

Mr. LOUD. I have understood that the captain of the *Dreadnought* was forty-odd years of age. I do not remember the exact age. It was somewhere between 40 and 50. That would indicate that he had come to his command at a reasonable age.

Mr. NEWBERRY. Yes; at 35 years of age.

Mr. LOUD. Thirty-five years. That is better. But it drew my attention to the fact that the reserved list was working admirably in their navy.

Mr. BUTLER. Do you propose to take the less efficient away from those who are more efficient and make a reserve list and put the less efficient into it?

Mr. NEWBERRY. Yes; those who are less efficient, or who are more efficient for shore duty.

Mr. ROBERTS. Mr. Secretary, I understood you, in speaking of your reserved list, to say that you would under your plan take officers as low down as lieutenants?

Mr. NEWBERRY. Yes.

Mr. ROBERTS. They would be taken out either on their own application or by a retiring board?

Mr. NEWBERRY. By selection.

Mr. ROBERTS. And put on to this reserve list?

Mr. NEWBERRY. Yes.

Mr. ROBERTS. In definite proportions from the different grades down to lieutenants?

Mr. NEWBERRY. Yes. It appears in the report definitely, and I would rather read that than to be quoted on it.

Mr. ROBERTS. Would you go below the grade of lieutenant?

Mr. NEWBERRY. It will not be necessary, because that is the first place where there is congestion.

Mr. ROBERTS. What will be the status of those officers who are on the reserve list? Will they get any promotion?

Mr. NEWBERRY. They will get one promotion.

Mr. ROBERTS. And that is the end of it?

Mr. NEWBERRY. That is the end of it.

Mr. BUTLER. They will get one promotion, and that is all?

Mr. NEWBERRY. That is all.

Mr. ROBERTS. A lieutenant of the senior grade put on that reserve list would be put on as a lieutenant-commander?

Mr. NEWBERRY. No; as a lieutenant. He could become a lieutenant-commander, and that is as far as he could go. That is economy. It saves money to the Government and creates a more efficient Navy.

Mr. LOUD. Would there not be a great stimulus for every man to compete?

Mr. NEWBERRY. I think that every officer will be vitally interested in his status.

Mr. BUTLER. There is one question I would like to ask. These sawdust men you propose to put on the reserve list and keep them off of the ships. What are you going to do with the active men, the men on the active list, who go to sea? They can not stay at sea all the time. When you bring them home what are you going to do with them?

Mr. NEWBERRY. If you will strike out the words "sawdust men," I think I can answer your question without prejudice. The active men would be so interested in their profession that they would find an opportunity not only to go to sea, but to become expert navigators and ordnance officers.

Mr. BUTLER. But they do not want to stay at sea all the time. They want to come home, and they want vacations.

Mr. NEWBERRY. They certainly will, and there will be duty for the seagoing officers on shore for brief periods. Eventually, of course, in a number of years, the reserve list will become small. The reserve

list is only created because the average age of the officers is above what we think should be the age when men ought to be promoted. If we stick to the question of the rear-admirals, there would be no vacancies created among the rear-admirals under the present system until the average age of all rear-admirals was over 59. Then we would begin creating vacancies until the average age was below 59. We would work back through the system, and the reserve list would become smaller and smaller, and the average age of officers for promotion would get less and less.

The CHAIRMAN. I understand that one feature of the bill is to retire men in the higher grades so as to bring the younger men to command rank at an earlier age?

Mr. NEWBERRY. Yes; it is to retire them in all grades from lieutenants to admirals.

Mr. HOBSON. Would not the legislation that you propose do away with all possibilities of any kind of reduction or variation from the percentage of the age limits there fixed?

Mr. NEWBERRY. It is all done away with.

Mr. HOBSON. May I ask whether you have arranged a slow and steady and effective means of putting the new system into operation?

Mr. NEWBERRY. Yes; we have. It will be before you in this hearing.

Mr. BUTLER. What is the method by which you intend to eliminate the feeble and decrepit?

Mr. NEWBERRY. I do not wish to answer the question in that way, because it might appear that I agree with your definition.

Mr. BUTLER. I am not afraid of committing myself on it. I have absolute contempt for them, and I will say what I please. They are men who can not keep up in the profession and you do not expect any more of them than you ought to. I am not going to commit you, because you are an administrative officer. But how are you going to pick those of less mental and physical capability out from among those who have greater capability?

Mr. NEWBERRY. By exactly the same method that was proceeded under last year and which is proceeded under in the present bill.

The CHAIRMAN. And they have come and presented private bills to be taken back in.

Mr. NEWBERRY. That will always be so.

The CHAIRMAN. Is it the purpose of the Department to carry out the present law the way they did it last year?

Mr. NEWBERRY. Yes, sir.

The CHAIRMAN. From now on; or are they going to do it as they did prior to last year?

Mr. NEWBERRY. No, sir; as they did it last year, without any qualification.

Mr. DAWSON. You spoke of this new plan as being one to save money to the Government. Would not the saving effected by placing officers on the reserve list be more than outweighed by the higher pay which would be granted by giving the men higher rank at an earlier age?

Mr. NEWBERRY. It is partially offset in one way; and I may add that it is stated in the report exactly how that system does work out.

Mr. HOBSON. Do you expect to have legislative action at this session of Congress?

Mr. NEWBERRY. I have hoped for it for the last two sessions of Congress. There is nothing so important, in my opinion, in connection with efficiency of the Navy, as the personnel. Until this matter is acted on by Congress the efficiency of the Navy is more or less fictitious.

Mr. HOBSON. Would you include with that legislation for the staff corps?

Mr. NEWBERRY. I certainly think it should be included. I will say, as to the report resubmitted here, that it was given to us so late in the year and with such a brief period to report in that we asked the Secretary of the Navy to relieve us from trying to report on the staff corps; but we could and did submit to him, and there were submitted by him to Congress, reports of the several staff corps, I think.

The CHAIRMAN. Has the Department made any recommendation on the staff corps itself?

Mr. NEWBERRY. It has not.

The CHAIRMAN. But the different staff corps have considered the matter separately, as individual corps, I believe, and have made recommendations?

Mr. NEWBERRY. They did.

The CHAIRMAN. But the Department itself has not made any recommendation?

Mr. NEWBERRY. No; because about that time the Secretary of the Navy, for the time being, went out.

Mr. HOBSON. Do you think it possible to have a general bill for both, or a separate bill for the staff corps?

Mr. NEWBERRY. My own idea would be to get the opinion of Congress on what the size of the personnel of the Navy should be, as they would indicate it in this line bill; and basing it on that, and without complicating the line of the Navy with any other feature, establish the size of the line itself, and rearrange the staff-corps details and practice in a subsequent or contemporaneous bill—I do not care which. But I think that one should be separated from the other, rather than to have them mixed up. However, that matter should be determined by you. That is a legislative question, and I am not prepared to say anything about it.

The CHAIRMAN. Are there any further questions, gentlemen? If not, Mr. Secretary, we are very much obliged to you.

The documents referred to by Mr. Newberry are as follows:

[Senate Document No. 142, Fifty-ninth Congress, second session.]

Message from the President of the United States.

[December 16, 1906.—Read, referred to the Committee on Naval Affairs, and ordered to be printed with accompanying illustrations.]

To the Senate and House of Representatives:

In my last three annual messages I have invited the attention of the Congress to the urgent necessity of such legislation as will cause officers of the line of the Navy to reach the grades of captain and rear-admiral at less advanced ages, and will give them more experience and training in the important duties of those grades. Under

the present archaic system of promotion, without parallel in the Navy of any other first-class power, captains are commissioned at the average age of 56 and rear-admirals at the average age of 60. This system is the result of a long-continued prejudice in favor of a method of promotion by which all lieutenants in order of seniority pass through the several grades until they eventually become rear-admirals; a method which sacrifices the good of the service to the interest of individual mediocrity. As a direct consequence of the existing method, naval officers obtain more than ample service in subordinate positions, but have a limited and inadequate experience as captains in command of battle ships and as flag-officers in charge of fleets and squadrons; that is, in the very positions of greatest responsibility; where experience, skill, and initiative are essential to efficiency. Moreover, they attain the position of a flag-officer but a few months before they reach the retiring age and have no opportunity to perfect themselves in the important duties of the high commands pertaining to such rank.

History, modern and ancient, has invariably shown that an efficient personnel is the greatest factor toward an effective navy. No matter how well equipped in other respects a navy may be; though its fleet may be composed of powerful, high-speed battle ships, maneuvered by complicated tactics based upon the latest development of naval science, yet it is grievously handicapped if directed by admirals and captains who lack experience in their duties and who are hampered by long deprivation of independent action and responsibility. To oppose such a fleet to one equally good, led by officers more active and more experienced in their duties, is to invite disaster.

The following table gives the ages of the youngest captains and flag-officers, with the average years in grade, in the navies of Great Britain, France, Germany, Japan, and the United States:

	Captains.		Seagoing flag-officers.	
	Age.	Average years in grade.	Age.	Average years in grade.
Great Britain.....	35	11.2	45	8
France.....	47	9.5	53	14.2
Germany.....	42	6.2	51	6
Japan.....	38	8	44	11
United States.....	56	4.5	59	1.5

The facts shown in this table are startling, and earnest attention is invited to them.

The Secretary of the Navy several months ago convened a board of six representative line officers, with the Assistant Secretary of the Navy as president, to consider and recommend such changes in existing law relative to the commissioned personnel of the line of the Navy as would tend to promote efficiency and economy. The essential recommendations of the board have been cordially approved by the Secretary. The bill herewith transmitted to the Congress has been formulated by the Secretary, and is based, except in a few details, upon the recommendations of the board. I earnestly recommend its early consideration. Should it be enacted into law it will cause officers on the seagoing list to reach the grade of captain at 48

and rear-admiral at 55, and will assure their serving seven years in the grade of captain and seven years in the grade of rear-admiral, thus enabling them to become thoroughly skillful and efficient in these grades.

The accompanying bill also establishes the grade of vice-admiral. This grade has long existed in all other principal navies of the world in order to obtain a selected grade of skilled commanders in chief. The commander in chief of a fleet, with one or more rear-admirals serving under him, is logically entitled to a higher rank than his subordinates, because of his greater authority and responsibility. On occasions of official importance, of international council, or of combined naval action (as, for instance, the Boxer troubles in China), the interests of this great nation demand that our naval representative shall rank as the equal of the naval representatives of other powers.

Moreover, under the accompanying bill, which is the result of recommendations made by a board principally composed of naval officers, a large percentage of the officers are eliminated from the seagoing list and never reach the grade of rear-admiral. When it is considered that the naval officers themselves recommend, in order to increase the efficiency of their service, that many be denied their existing privilege of reaching flag rank, it is only just to them that we should place their highest officers on a plane of equal rank with their colleagues of other nations, with whom they are so frequently brought in official contact.

If the proposed plan of promotion is carried out it will, as compared with existing law, make a saving of more than five millions of dollars during the next seven years. The principal part of this saving is made by stopping the voluntary retirement of young lieutenant-commanders with the rank and pay of commanders upon the retired list.

I am firmly of the opinion that unless the present condition of the higher-commissioned personnel is rectified by judicious legislation the future of our Navy will be gravely compromised.

I forward herewith a letter of the Secretary of the Navy inclosing duplicate drafts of the proposed bill. I also forward a copy of the report of the personnel board of the Navy.

THEODORE ROOSEVELT.

THE WHITE HOUSE, *December 17, 1906.*

APPENDIX A.

REPORT OF PERSONNEL BOARD.

[NOTE.—The following report has been annotated by the Secretary of the Navy, as indicated in his annual report. Those clauses and sentences of the report of the Personnel Board on which he desires to comment are printed in the following in italics. Directly following the italics, and printed within brackets, are the Secretary's comments on the clauses or sentences italicized.]

SIR: The board appointed by your order of August 16, 1906, to carefully consider existing laws affecting the commissioned personnel of the naval establishment of the United States and to recommend such additions thereto, omissions therefrom, and changes therein as will in the judgment of said board tend to promote efficiency and economy, and will also be consonant with justice and an equitable regard for the interests of those thereby affected, beg to report as follows on the first of the divisions referred to therein, namely, "A report of recommendations affecting the officers of the line of the Navy only."

It is essential in a military organization, such as that of the naval service, in order to obtain the highest efficiency in the executive branch, that there should be a regular flow of promotion, so that officers will remain in the lower grades sufficiently long to enable them to obtain that experience and to reach that maturity necessary to fit them for the responsible duties of command and flag rank; and that promotion to the upper grades should not be so delayed that officers by reason of long service in subordinate positions fail to develop those qualities of decision and sustained energy that make leaders; at the same time officers should spend sufficient time in each of the upper grades to enable them to gain the necessary experience to fit them for the work of that grade before being promoted to the next higher grade. That the present law would not operate to bring about this principle, and in that respect is defective, was recognized by President Roosevelt while Assistant Secretary of the Navy. In submitting, as chairman, the report of the personnel board in 1897, he said: "Some provision must also be made as to the maximum age at which officers shall be eligible for promotion to the grade of rear-admiral."

An examination of the navy list discloses a condition of affairs under the present law that seriously affects the efficiency of the service and constitutes a grave menace, if not a positive danger, to the public interests. As taken from the navy list the average age of rear-admirals on July 1, 1906, was 60 years and 8 months; of captains, 57 years 9 months; of commanders, 51 years 4 months; under existing law, on January 1, 1910, the average ages will be 60 years 11 months; 57 years 11 months; 51 years 9 months, respectively, and on January 1, 1914, the average ages will be 60 years 7 months; 58 years 1 month; 50 years 8 months, respectively. Congress has authorized a considerable increase in the number of midshipmen at the Naval Academy, and these midshipmen upon graduation are promoted to ensign and lieutenant (junior grade). But no provision

has been made for a corresponding increase in the upper grades, the result being that the lower grades will become so congested that a midshipman now in one of the lower classes at Annapolis may possibly not be promoted to lieutenant until he is between 45 and 50 years of age.

And so it will continue under the present law, congesting at the top and congesting at the bottom, and the country fails to get from the officers of the service the best that is in them by not providing opportunity for their normal development and training. The board believes that this works a serious detriment to the efficiency of the Navy and is a real menace to the public safety.

Thus it is perfectly plain that an automatic system of promotion must be devised whereby each officer spends a minimum time in each grade to obtain a definite amount of experience in that grade, and there must also be a maximum period to be spent in each grade in order that the amount of service in each should be regularly proportioned from the lowest to the highest.

Having determined upon these cardinal principles, which are deemed necessary to meet the needs of the country, in formulating a plan to put them into effect the following considerations were taken into account: First, it must be economical; second, that compensation to officers should be proportionate to services rendered; third, that all officers who do not develop special fitness can not hope to reach the highest rank in the service; fourth, that there should be some incentive to create competition between officers to encourage them to strive for the distinction of reaching the highest rank.

Now, the duties of the service are such as to require a certain proportion of officers in each grade, and this proportion, bearing in mind the principles enunciated above (of length of service and experience in each grade), is such that from time to time a certain number of officers must be eliminated from each of the upper grades. The board considered several methods of accomplishing this; first, by selecting for promotion those officers who by their records and their known accomplishments are presumptively more fitted than their fellow-officers for promotion, and eliminating the latter when their time of usefulness has passed, to make way for those below them; second, by what is known as elimination or selection out, whereby when it is necessary to create vacancies for the purpose of keeping up the regular flow of promotion, officers who are least fitted for such promotion are taken from the seagoing or active list.

Officers so eliminated, whether by one or the other of the above plans, could be placed upon the retired list on reduced pay or placed upon a reserve list, their services being utilized so long as they are of value for the performance of special duty ashore. The board is of opinion that the creation of a reserve list best serves the interests of the country, as services of officers on the reserve list could be utilized at sea in time of war or emergency and because there are many officers, who, while not so well adapted to a life at sea as their fellows, are specially fitted for naval work ashore, and such officers might prefer to serve on the reserve list, where they could use their talents and their abilities to the best advantage.

After careful consideration of both plans the board is strongly of opinion that the second is better suited to our system of government, of naval education, administration, and organization, and agrees unanimously with the opinion expressed by the personnel

board of 1897. It was deemed best by every member of the board to try the process of eliminating the officers who were redundant rather than by selecting the highest for promotion, for although the latter method is ideally the best, it would, in any event, have to be combined with the other, and it would in its actual working be open to far graver objections. Being guided by the fundamental considerations expressed above, the accompanying plan has been evolved. Its details have been carefully worked out, the minimum number of officers required for the fleet, the number of officers in each grade, the length of time to be spent in each, and the amount of sea service required in each grade, all are based upon the experience of years and upon modern requirements afloat and ashore. It is automatic in its action, being constantly regulated so that there are no sudden flights of promotion nor yet long periods of service in any one grade. It is elastic and can be adapted to any number of officers that may be required for the defense of the country. It is economical and will, in comparison with the cost of maintenance of the line personnel under the present law, on the basis of 1,500 officers, actually result in a saving to the Government in seven years of about \$5,000,000.

Perhaps it would be well to explain the reasons for the board's recommendations for three vice-admirals. The Government, in its naval organization, in order to conserve its dignity and to maintain discipline, has conferred rank and authority upon certain individuals commensurate with the responsibilities which devolve upon those individuals. Thus, not considering subordinate officers, there are commanders who command cruisers and are available as second in command of battle ships, captains who command battle ships, and rear-admirals who command divisions, squadrons, and fleets. Logically and naturally officers who command squadrons and fleets, in keeping with their dignity and the responsibilities of their positions, should have a higher rank than that of rear-admiral, and so, taking into consideration the present size of the fleet, the board is of the opinion that there should be at least three vice-admirals, one to command the fleet on the Atlantic and one on the Pacific, and one to have a position of the highest responsibility on shore. As the law now stands the rank of rear-admiral is, in the natural order of things, the highest an officer can look forward to. Thus, upon arriving at that rank, an officer has finished his career so far as rank is concerned. The board believes that officers should be trained to command fleets just as they are trained to command ships, and that the possibility of promotion to the grade of vice-admiral will stimulate younger flag-officers to activities that would be of material benefit to the service. It is the practice in foreign countries to have vice-admirals and admirals, and the principal navies have even a greater number of vice-admirals in proportion to the number of officers in the service and to the number of ships than the board recommends. This lack of officers of high rank is often embarrassing, for when our fleet meets a foreign fleet, even though the officer in command of the latter be junior in years and with a smaller fleet, he takes precedence over our own commander by virtue of superior rank, thus giving an impression of inferiority to inhabitants of foreign countries.

Appended is an explanation, prepared at the request of the board by Lieut. Commander A. L. Key, U. S. Navy, on the working of the plan, giving in detail the cost of its operation as prepared by the Bureau of Supplies and Accounts.]

ORGANIZATION.

1. The active list of the line officers of the Navy should consist of a seagoing list of 1,500 officers below flag rank, plus those carried as additional numbers. The present list should be increased accordingly by not more than 75 numbers annually, in addition to the vacancies normally created during the year, until the total number on the seagoing list be attained: *Provided*, That the numbers comprising the class of midshipmen to be promoted at once under the conditions named in paragraph 20 of these recommendations be excluded from the computation for the fiscal year in which such promotion takes place.

2. There should be 3 vice-admirals and 21 rear-admirals on the active list, the vice-admirals to be increased in number by 1 for every increase of the enlisted personnel by 8,000.

3. The number of officers below flag rank should be distributed among the several grades in the following proportions of the whole number of commissioned officers borne as regular numbers below flag rank, viz: Captains to consist in number of 7 per cent of the whole number; commanders, 7 per cent; lieutenant-commanders, 18 per cent; and lieutenants, lieutenants (junior grade), and ensigns, 68 per cent in all; provided that the numbers fixed in the grades of captain and commander be 90 for each grade until June 30, 1913, or six years after enactment of law, when each grade of captain and commander is to be increased at the rate of not more than 5 each year until each grade composes 7 per cent of the total of commissioned officers below flag rank; providing, further, that no one is to be reduced in rank.

4. Vice-admirals should have the rank, pay, and allowances given to lieutenant-generals of the Army and should be retired at the age of 64 years, but should not be allowed the privilege of voluntary retirement.

5. A board should be constituted consisting of 5 flag-officers from the active and retired list senior to all the rear-admirals on the active list, which should recommend to the President of the United States 5 rear-admirals as eligible for promotion to vice-admirals, *3 to be selected by the President and nominated to the Senate for appointment as vice-admirals*. [After consideration of such report the President shall nominate and, by and with the consent of the Senate, appoint 3 persons to be vice-admirals.] Thereafter whenever a vacancy occurs in the grade of vice-admiral a board consisting of 5 flag-officers of the active and retired lists senior to all the rear-admirals on the active list should recommend for such vacancy 3 rear-admirals on the active list to the President of the United States as eligible for promotion to vice-admirals, *1 of whom to be selected by the President and nominated to the Senate for appointment as vice-admiral*. [After consideration of such report the President shall nominate and, by and with the consent of the Senate, appoint a person to be vice-admiral.]

6. No rear-admiral should be eligible for recommendation for promotion to vice-admiral who has not had at least one year of sea service as flag-officer, and the rear-admirals who are selected for recommendation should be those, in all cases, who in the opinion of the selecting board are best fitted to command a fleet of battle ships in action.

7. There should be formed a list of officers reserved for shore duty only, to be known as the reserve list, with the pay and allowances now given to officers on shore duty. Whenever the average age of the officers composing the grade of rear-admiral is more than 59 years, rear-admirals should be permitted to apply to the Secretary of the Navy for transfer to the reserve list, and on the 30th of June of each year, when the average age of said officers in said grade is more than 59 years, the applicants in the order of rank, not to exceed 4, by Executive order, should be transferred to the reserve list. Should there be less than 4 applicants, the Secretary of the Navy should convene a board of 5 flag-officers senior to all of those on the active list of rear-admirals, who will designate the additional number necessary to cause the transfer of a total of 4 rear-admirals to the said reserve list on the 30th of June aforesaid, and any rear-admiral transferred to the reserve list should take rank and precedence after the rear-admiral next ahead of him on the seagoing list and be retired at the age of 62 years.

8. Whenever on the 30th of June of each year the senior 10 captains *in order of consecutive graduation from the Naval Academy* [in this passage the contingency that some one or more of the 10 may not have been graduated from the Naval Academy seems to be overlooked] average more than 55 years of age, or whenever on June 30 the senior 10 commanders in order of consecutive graduation from the Naval Academy average more than 48 years of age, a board of 5 rear-admirals should be appointed to designate 15 per cent of the captains for the reserve list, and similarly on June 30 of each year when the 10 senior lieutenant-commanders *in order of consecutive graduation from the Naval Academy* [in this passage the contingency that some one or more of the 10 may not have been graduated from the Naval Academy seems to be overlooked] average more than 44 years of age, the same board should designate 10 per cent of the commanders for the reserve list.

Each member of the board of 5 rear-admirals herewith recommended shall swear or affirm that he will without prejudice or partiality, and having in view solely the special fitness of officers and the efficiency of the naval service, perform the duties imposed upon him by this section. Its findings, which shall be in writing, to be signed by all members, not less than 4 governing.

On the 30th of June when the senior 10 lieutenants *in order of consecutive graduation from the Naval Academy* [in this passage the contingency that some one or more of the 10 may not have been graduated from the Naval Academy seems to be overlooked] average more than 37 years of age, similarly a board of 5 captains, to be organized and governed by the same oath and form of procedure as the board of 5 rear-admirals already mentioned, should designate 10 per cent of the lieutenant-commanders for the reserve list. In computing these percentages all resultant fractions to be excluded.

Officers of the reserve list who have had, at the time of their transfer to the reserve list, thirty years' service *from date of entry at the Naval Academy* [or date of original warrant], should have one promotion contemporaneously with the officer next ahead of them on the seagoing list, but not to the grade of rear-admiral, subject to examinations as prescribed by law, provided that promotions on the reserve list from the grade of captain be to the grade of commodore, when he

should be retired as commodore on three-fourths pay, and that a rear-admiral, when placed on the reserved list, shall have the rank he then holds and be promoted with the officer next above him on the seagoing list. The grade of vice-admiral should not be treated as the next higher grade for the purpose of promotion on the reserve list or for retirement from the seagoing list.

Officers in grades from which elimination for the reserve list is or may be authorized by law should be permitted to submit applications for such reserve list. The board authorized to make the list of reservations should prepare its list after reference to the list of voluntary applications, having due regard to the special fitness of officers and the efficiency of the naval service.

In order to prevent an excess of officers upon the reserve list beyond the requirements of the duties which they are to perform, it is recommended that an officer who is transferred to the reserve list as captain should be retired as commodore on three-fourths pay of grade when the captain who was next above him on the list of captains becomes a rear-admiral, and an officer who is transferred to the reserve list as commander should be retired as captain with three-fourths pay of grade when the officer who was next above him on the list of commanders is promoted to captain, and that an officer who is transferred to the reserve list as lieutenant-commander should be retired as lieutenant-commander on three-fourths pay of grade when the officer who was next above him is promoted to captain. It is further recommended that lieutenant-commanders transferred to the reserve list be allowed to voluntarily retire as such on half pay of grade at the discretion of the President.

It is further recommended that the provisions of the United States Statutes at Large, volume 29, page 361, chapter 399, prohibiting retired officers of the Navy from holding employment with firms furnishing supplies and war material to the Government be repealed. [This provision is disapproved.]

Any officer who served with credit as an officer or as an enlisted man in the regular or volunteer forces during the civil war prior to April 9, 1865, otherwise than as a cadet, who may be designated for the reserve list, should be entitled to two promotions on said reserve list contemporaneously with the officer next ahead of him on the seagoing list, subject to the examinations now provided by law, providing that nothing should be construed to entitle said officers on the reserve list to be promoted above the grade of rear-admiral.

10. *The duties for which the officers on the reserve list should not be eligible should be defined by law, and the board is of the opinion that in time of peace they should not be eligible to duty as chiefs of bureaus, assistant chiefs of bureaus, members of the General Board, commandants of navy-yards or stations, and such secondary duties on shore as are necessary for the individual professional development and training of officers on the seagoing list.* [This provision is disapproved.]

11. Any commissioned officer of the seagoing list of the line below the grade of rear-admiral who is found physically disqualified for sea duty but is pronounced capable of performing shore duty, should be placed on the reserve list.

and Marine Corps, and the provision of section 1243 of the Revised Statutes and chapter 1125 of the acts of the last session of the Fifty-first Congress, act of September 30, 1890, relating to retirements in the Army and Marine Corps, should be made applicable to the Navy; but no officer should be permitted to voluntarily retire with less than thirty years' service on the active list except as provided in section 8, paragraph 6, of this report.

26. *The board recommends that from this time henceforth no additional officers from the retired list of and above the rank of commander be employed upon duty for which officers on the active list are eligible; and that as soon as practicable those officers now so employed be relieved by officers from the active list or from the proposed reserve list. [This provision is disapproved.]*

27. These recommendations, if carried out, would involve the modification or repeal of Revised Statutes, sections 2340, 2341, 2445, 2448, 2449, 2450-2457 (2461), 2464, 2466, 2467, 2473-2480, 2503-2516, 2531, 2534, 2537, 2538, 2599, as to pay of midshipmen.

28. The board recommends that section 1442 of the Revised Statutes, giving the Secretary of the Navy authority to place any officer on the active list on furlough, be amended by adding the words "on his own request" after the words "active list of the Navy."

29. There should be appointed an assistant to the Chief of Bureau of Equipment, the appointment to be made in the manner now provided by law for assistants to chiefs of bureaus. H&W

RETIRED LIST.

30. Retired officers of the Navy, who have been retired for disabilities resulting from an incident of service, ordered to active duty should have the rank, pay, and allowances of officers of the active list of like length of active service, and if actively employed for three years after retirement, when detached from duty, retain the rank and highest retired pay of the grade they then hold; *provided that no retired officer so employed on active duty shall have at any time rank and pay of grade higher than that of lieutenant-commander.* [This provision is disapproved.] The time of service of the retired officer for the purpose of fixing his rank, pay, and allowances to be made up of the period of service before retirement, to which should be added the time engaged in active service, under the order of the Secretary of the Navy, while on the retired list; provided further that the rank and pay of any officer on the retired list should not thereby be reduced.

WARRANT OFFICERS.

31. The provisions of the law governing the examination of boatswains and gunners for commissions as ensigns should be extended to include chief boatswains and chief gunners.

32. The pay of boatswains and gunners should remain as now fixed by law, except that they should have the 10 per cent increase of pay for shore duty beyond seas allowed other officers of the Navy.

33. Boatswains and gunners who are or have been promoted to chief boatswains and chief gunners, to rank with but after ensigns, should suffer no reduction in pay on account of such promotion, but continue to receive the higher pay until the pay of the rank to which they are promoted is equal to or higher than that they were receiving at the time of promotion.

34. The pay of chief boatswains and chief gunners to be as follows:

First five years from date of appointment.....	\$1, 400
Second five years from date of appointment.....	1, 600
Third five years from date of appointment.....	1, 800
After fifteen years from date of appointment.....	2, 000

Very respectfully,

TRUMAN H. NEWBERRY,
Assistant Secretary of the Navy, President of the Board.
 C. H. STOCKTON,
Rear-Admiral, U. S. Navy, Member of Board.
 C. E. VREELAND,
Captain, U. S. Navy, Member of Board.
 H. H. HOSLEY,
Commander, U. S. Navy, Member of Board.
 ALBERT GLEAVES,
Commander, U. S. Navy, Member of Board.
 EMIL THEISS,
Lieutenant-Commander, U. S. Navy, Member of Board.
 HILARY P. JONES,
Lieutenant-Commander, U. S. Navy, Member of Board.
 CLELAND DAVIS,
Lieutenant-Commander, U. S. Navy, Recorder of Board.

MEMORANDUM ON FOREGOING NOTES.

The provisions in paragraph 5, for which the Department suggests different language, are objectionable in that they apparently seek to limit the discretion of the President in appointments to the office of Vice-Admiral. The Department regards such limitations as of doubtful constitutionality and, in any event, as inexpedient. The Department, however, approves cordially of the provision for obtaining advice of officers of high rank to assist the President in the discharge of his constitutional duty.

The provisions noted as objectionable in paragraph 8 seem to overlook the possibility that they may affect officers who are not graduates of the Naval Academy. While such a contingency would be altogether exceptional under existing circumstances, as matter of law it should be guarded against. The Department holds that officers on the retired list who receive compensation from the Government should not be permitted to assume duties which oblige them to protect interests hostile to the Government. This appears to the Department inconsistent with sound business principles, and might be attended by more or less serious abuses in practice.

Paragraph 10 is disapproved because the Department thinks the subject to which it relates should be covered by naval regulations and not by statute, and also because the Department thinks as much latitude as possible should be permitted respecting the assignment of officers on the contemplated "reserve list." As far as practicable officers on this list should, in the judgment of the Department, be employed in all shore duties, so that officers on the active list may be all available for sea duty at any time.

Paragraph 21 is unobjectionable, but if the Department's recommendations, in the fourth paragraph under the heading "The Naval

Academy," of the Secretary's Report for 1906, that all vacancies in the lowest grades of the Pay Corps and Marine Corps be filled from graduates of the Naval Academy, and that undergraduates be allowed to take special courses which, when supplemented by a suitable postgraduate course, will fit them for commissions in the Medical Corps or as civil engineers, be adopted, it seems altogether improbable that an appreciable number of midshipmen will have to be discharged from the service, as required by the terms of this paragraph.

Paragraph 26 is disapproved because the Department holds that the employment on active duty of officers on the retired list, in assignments which they are competent to fill satisfactorily, is desirable as affording the Government a direct return for the expense it incurs in their compensation, and therefore the opportunities for such employment should not be abridged.

The part of paragraph 30 forbidding a retired officer on active duty to have a higher rank or pay than that of lieutenant-commander appears to the Department altogether indefensible. A retired rear-admiral, for example, ordered to duty on a court-martial would regard it as an indignity if a commander on the active list forming part of the same court were given precedence over him. It may be here noted that the language of this entire paragraph is somewhat obscure, although, as construed by the Department, its provisions seem to be unobjectionable, except in the particular above noted.

As stated in the annual report, with the exceptions indicated above, the report of the board on commissioned personnel is very cordially approved by the Department and strongly recommended to the favorable consideration of the Congress.

NAVY DEPARTMENT,
Washington, D. C., February 19, 1908.

SIR: 1. The board appointed by the Department's order of January 7, 1908, has the honor to report as follows:

2. The average casualties which have occurred in the various commissioned grades during the nine years from January 1, 1899, to January 1, 1908, were found to be:

	Per cent.
Rear-admirals.....	10
Captains.....	9
Commanders.....	2
Lieutenant-commanders.....	1½
Lieutenants.....	3
Lieutenants (junior grade).....	4
Ensigns.....	3

While these percentages differ greatly in the different grades, the mean percentage is very nearly 3 per cent, the figure which has been used in previous calculations.

3. Vacancies caused by the personnel act of 1899 have been made in the grades of captain, commander, lieutenant-commander, and lieutenant in the following proportions:

	Per cent.
Captain.....	15
Commander.....	21
Lieutenant-commander.....	55
Lieutenant.....	9

4. Using the foregoing percentages, the accompanying tables were drawn up showing the number of officers in each grade, as calculated, under existing law and under the provisions of Senate bill 8266, on July 1 of each year from 1908 to 1925, inclusive. As verbally directed, the plan of Senate bill 8266 was modified to make the number of commissioned officers 2,000 instead of 1,500. This accounts in part for the board's calculated cost of the Senate-bill plan being materially greater than that given in the report of the personnel board.

5. On the completion of the calculated Navy lists they were turned over to the Bureau of Supplies and Accounts, where, under the direction of Pay Inspector Carpenter, the comparative costs of the two systems were calculated. These costs, stated in the form of "increases" and "decreases," are given in the inclosed tables.

The computations for the cost of the retired list are based on the theory that the Government virtually contracts to pay an officer, at the date he is placed upon the retired list, a fixed rate of pay for the remainder of his life. The probable length of life of each officer is taken from the American mortality tables for his age at the date of his retirement. Consequently, the cost of the retired lists given in the accompanying tables represents the ultimate cost and does not represent the specific annual appropriations. If the Government should pay an officer at the date of his retirement the lump sum that he will probably receive in monthly installments during his life, then the accompanying tables showing the cost of the retired lists would represent the annual appropriations necessary to pay the officers retired under each plan of promotion.

6. It is found that the cost of the active list under the Senate-bill plan exceeds that under existing law by \$7,075,515 for the period of eighteen years considered. The cost of the retired list under existing law exceeds that under the Senate-bill plan by \$15,235,968. The cost of the reserved list under Senate-bill plan, for the same period of eighteen years, would be \$2,489,529, and the cost of retiring all the officers on that reserved list at the expiration of the eighteen-year period would be \$5,053,125. Consequently, comparing the total costs of the two systems for the period considered, there appears to be a balance of \$617,799 in favor of the Senate-bill plan, in which the seagoing list is increased to 2,000 commissioned officers, exclusive of flag officers and those officers carried as additional numbers.

7. If the reserved-list feature is eliminated from the Senate bill plan and all officers compulsorily removed from the active list under that plan are retired, the total cost for the eighteen-year period would be \$685,622 greater than under existing law.

8. The reason why the board's calculations show that the Senate-bill plan without reserved list costs more than existing law, while the Senate-bill plan with reserved list costs less than existing law, is that the percentages of casualties on the reserved list were taken to be the same as on the active list, which is undoubtedly excessive. The board, however, had no data upon which to base an estimate of the real rate of decrease of the reserved list due to casualties. As calculated, the reserved list for the eighteen-year period costs \$12,590,554, and the retirement of the same officers instead of reserving them would cost \$13,893,975; but as a matter of fact the

board is of opinion that this difference in favor of the reserved-list system would not really occur and that doing away with the reserved list would probably be an economy in money.

9. The computations for a seagoing list of 1,500 commissioned officers, required by the original provisions of the Senate-bill plan, show that the cost of the active list under existing law exceeds that of the seagoing list under the Senate-bill plan by \$4,284,095. The cost of the reserved and retired lists under the Senate-bill plan for the eighteen years considered is essentially the same for a seagoing list of 1,500 officers as for a list of 2,000 officers. Consequently, comparing the total costs of the two systems as calculated for the period considered, there is a balance of \$11,977,409 in favor of the Senate-bill plan carrying a list of 1,530 commissioned officers, as against the plan of existing law, under which the number of commissioned officers on June 30, 1925, would be 2,060. This calculated balance, for the reason stated in paragraph 8, is undoubtedly somewhat excessive; but, on the other hand, under the Senate-bill plan the officers are properly distributed in the various grades, while under existing law nearly 50 per cent would be in the grade of junior lieutenant.

Respectfully submitted.

Professor of Mathematics, U. S. Navy,
Senior Member of Board.

Pay Inspector, U. S. Navy, Member.

Lieutenant Commander, U. S. Navy, Member.

The SECRETARY OF THE NAVY.

Comparison of cost of active lists of existing law and board plan carrying 2,000 commissioned officers below flag rank.

MAY 1, 1908 TO JUNE 30, 1908.

Grade.	Existing law.		Board plan.		Increase.	Decrease.
	Number.	Age of senior.	Number.	Age of junior.		
Vice-admiral.....	0		0			
Rear-admiral (senior).....	12	60	17	59	6,250	
Rear-admiral (junior).....	11		14		3,000	
Captain.....	74	54	129	52	41,250	
Commander.....	121	45	105	42		10,666.66
Lieutenant-commander.....	211	35	177	34		19,333.33
Lieutenant.....	290	27	278	28		4,330.00
Lieutenant (junior grade).....	0		212	25	68,300	
Ensign.....	212	25	104	24		27,720.00
Midshipman.....	305	22	200	22		16,625.00
Total.....	1,236		1,236		108,800	79,165.00
Difference.....					29,635	

Comparative cost of active lists—existing law and board plan for 2,000 commissioned officers below flag rank—Continued.

JULY 1, 1908, TO JUNE 30, 1909.

Grade.	Existing law.		Board plan.		Increase.	Decrease.
	Number.	Age of junior.	Number.	Age of junior.		
Vice-admiral.....	0		3	61	33,000	
Rear-admiral (senior).....	12	60	18	59	45,000	
Rear-admiral (junior).....	11		14		18,000	
Captain.....	84	55	127	50	193,500	
Commander.....	121	45	106	41		64,000
Lieutenant-commander.....	211	34	215	33		39,750
Lieutenant.....	328	27	284	27		95,040
Lieutenant (junior grade).....	0		163	25	268,950	
Ensign.....	267	24	303	23	55,440	
Midshipman.....	394	22	196	22		189,060
Total.....	1,428		1,427		613,890	387,840
Total increase for the year.....					226,050	

JULY 1, 1909, TO JUNE 30, 1910.

Vice-admiral.....	0		4	60	44,000	
Rear-admiral (senior).....	13	60	17	57	30,000	
Rear-admiral (junior).....	13		13			
Captain.....	78	53	129	47		
Commander.....	120	42	95	41	229,500	100,000
Lieutenant-commander.....	212	35	237	32	28,250	
Lieutenant.....	343	27	273	27		151,200
Lieutenant (junior grade).....	0		202	25	333,300	
Ensign.....	396	24	384	23		18,480
Midshipman.....	364	22	175	22		179,560
Total.....	1,539		1,529		665,050	449,230
Total increase for the year.....					215,820	

JULY 1, 1910, TO JUNE 30, 1911.

Vice-admiral.....	0		4	61	44,000	
Rear-admiral (senior).....	12	60	16	56	30,000	
Rear-admiral (junior).....	12		12			
Captain.....	76	53	122	44	207,000	
Commander.....	120	42	95	38		100,000
Lieutenant-commander.....	211	34	257	32	96,750	
Lieutenant.....	354	28	303	27		110,160
Lieutenant (junior grade).....	51	27	286	25	387,750	
Ensign.....	468	24	355	23		174,020
Midshipman.....	335	22	165	22		161,500
Total.....	1,639		1,615		765,500	545,680
Total increase for the year.....					219,820	

JULY 1, 1911, TO JUNE 30, 1912.

Vice-admiral.....	0		5	59	55,000	
Rear-admiral (senior).....	12	59	16	54	30,000	
Rear-admiral (junior).....	13		13			
Captain.....	77	53	111	41	163,000	
Commander.....	115	41	95	37		80,000
Lieutenant-commander.....	209	34	273	31	208,000	
Lieutenant.....	352	28	243	28		235,440
Lieutenant (junior grade).....	104	27	455	25	579,150	
Ensign.....	523	24	325	23		304,920
Midshipman.....	335	22	175	22		162,000
Total.....	1,740		1,711		1,025,150	772,360
Total increase for the year.....					252,790	

Comparative cost of active lists—existing law and board plan for 2,000 commissioned officers below flag rank—Continued.

JULY 1, 1912, TO JUNE 30, 1913.

Grade.	Existing law.		Board plan.		Increase.	Decrease.
	Number.	Age of junior.	Number.	Age of junior.		
Vice-admiral.....			5	60	55,000	
Rear-admiral (senior).....	10	60	16	53	45,000	
Rear-admiral (junior).....	10		12		12,000	
Captain.....	77	54	112	43	157,500	
Commander.....	114	41	96	40		76,000
Lieutenant-commander.....	211	35	283	32	213,750	
Lieutenant.....	350	29	288	28		133,220
Lieutenant (junior grade).....	234	27	508	25	417,000	
Ensign.....	467	24	325	23		240,450
Midshipman.....	345	22	175	22		161,500
Total.....	1,838		1,829		900,250	620,900
Total increase for the year.....					279,350	

JULY 1, 1913, TO JUNE 30, 1914.

Vice-admiral.....	0		6	58	66,000	
Rear-admiral (senior).....	10	50	19	55	67,500	
Rear-admiral (junior).....	10		14		24,000	
Captain.....	76	51	104	43	126,000	
Commander.....	113	42	96	38		68,000
Lieutenant-commander.....	211	35	305	32	252,750	
Lieutenant.....	350	29	418	28	146,880	
Lieutenant (junior grade).....	351	27	471	25	145,350	
Ensign.....	469	24	294	23		269,500
Midshipman.....	345	22	175	22		161,500
Total.....	1,935		1,902		828,480	469,000
Total increase for the year.....					329,480	

JULY 1, 1914, TO JUNE 30, 1915.

Vice-admiral.....	0		6	58	66,000	
Rear-admiral (senior).....	9	60	18	53	67,500	
Rear-admiral (junior).....	9		14		30,000	
Captain.....	76	50	106	42	135,000	
Commander.....	114	43	100	39		56,000
Lieutenant-commander.....	210	35	317	32	295,250	
Lieutenant.....	350	30	527	28	332,320	
Lieutenant (junior grade).....	446	27	453	25		55,350
Ensign.....	470	24	255	23		331,100
Midshipman.....	345	22	175	22		161,500
Total.....	2,029		1,971		976,070	603,950
Total increase for the year.....					372,120	

JULY 1, 1915, TO JUNE 30, 1916.

Vice-admiral.....	0		6	58	66,000	
Rear-admiral (senior).....	9	60	19	53	75,000	
Rear-admiral (junior).....	9		15		36,000	
Captain.....	75	48	108	42	148,500	
Commander.....	118	43	105	39		52,000
Lieutenant-commander.....	206	34	320	32	355,000	
Lieutenant.....	350	31	603	28	546,480	
Lieutenant (junior grade).....	528	27	415	25		205,650
Ensign.....	480	24	268	23		326,480
Midshipman.....	345	22	175	22		161,500
Total.....	2,119		2,044		1,236,980	805,630
Total increase for the year.....					421,380	

Comparative cost of active lists—existing law and board plan for 2,000 commissioned officers below flag rank—Continued.

JULY 1, 1916, TO JUNE 30, 1917.

Grade.	Existing law.		Board plan.		Increase.	Decrease.
	Number.	Age of junior.	Number.	Age of junior.		
Vice-admiral.....	0		6	58	66,000	
Rear-admiral (senior).....	9	60	20	55	82,500	
Rear-admiral (junior).....	9		15		36,000	
Captain.....	75	48	113	42	171,000	
Commander.....	118	42	109	39		36,000
Lieutenant-commander.....	205	36	341	33	380,750	
Lieutenant.....	350	33	684	28	658,440	
Lieutenant (junior grade).....	616	27	387	25		470,250
Ensign.....	480	24	267	23		328,020
Midshipman.....	345	22	175	21		161,500
Total.....	2,207		2,117		1,404,690	996,770
Total increase for the year.....					408,920	

JULY 1, 1917, TO JUNE 30, 1918.

Vice-admiral.....	0		6	58	66,000	
Rear-admiral (senior).....	11	58	20	54	67,500	
Rear-admiral (junior).....	11		15		24,000	
Captain.....	71	48	117	44	207,000	
Commander.....	117	42	114	40		12,000
Lieutenant-commander.....	203	36	354	33	440,000	
Lieutenant.....	350	32	709	28	842,040	
Lieutenant (junior grade).....	701	27	364	25		661,200
Ensign.....	480	24	255	22		346,500
Midshipman.....	345	22	175	21		161,500
Total.....	2,289		2,189		1,646,540	1,181,200
Total increase for the year.....					465,340	

JULY 1, 1918, TO JUNE 30, 1919.

Vice-admiral.....	0		6	58	66,000	
Rear-admiral (senior).....	11	59	15	53	30,000	
Rear-admiral (junior).....	11		12		6,000	
Captain.....	71	48	123	44	234,000	
Commander.....	117	42	120	40	12,000	
Lieutenant-commander.....	203	36	360	34	459,500	
Lieutenant.....	350	33	823	28	958,680	
Lieutenant (junior grade).....	782	27	363	24		808,650
Ensign.....	480	24	224	22		394,240
Midshipman.....	260	22	90	21		161,500
Total.....	2,285		2,136		1,766,180	1,364,390
Total increase for the year.....					401,790	

JULY 1, 1919, TO JUNE 30, 1920.

Vice-admiral.....	0		6	58	66,000	
Rear-admiral (senior).....	10	56	14	54	30,000	
Rear-admiral (junior).....	11		11			
Captain.....	71	48	129	44	261,000	
Commander.....	118	38	124	40	24,000	
Lieutenant-commander.....	202	37	360	34	513,500	
Lieutenant.....	350	33	884	28	1,090,440	
Lieutenant (junior grade).....	858	27	363	24		948,450
Ensign.....	480	24	153	22		503,590
Midshipman.....	177	22	90	21		82,650
Total.....	2,276		2,134		1,984,940	1,531,680
Total increase for the year.....					453,260	

Comparative cost of active lists—existing law and board plan for 2,000 commissioned officers below flag rank—Continued.

JULY 1, 1920, TO JUNE 30, 1921.

Grade.	Existing law.		Board plan.		Increase.	Decrease.
	Number.	Age of junior.	Number.	Age of junior.		
Vice-admiral.....	0		6	58	66,000	
Rear-admiral (senior).....	10	55	14	53	30,000	
Rear-admiral (junior).....	9		11		12,000	
Captain.....	72	49	132	44	270,000	
Commander.....	117	42	129	40	48,000	
Lieutenant-commander.....	201	37	360	35	466,500	
Lieutenant.....	350	33	954	28	1,241,640	
Lieutenant (junior grade).....	931	27	322	25		1,144,800
Ensign.....	399	24	114	22		438,900
Midshipmen.....	177	22	90	21		82,680
Total.....	2,266		2,132		2,134,140	1,666,060
Total increase for the year.....					468,000	

JULY 1, 1921, TO JUNE 30, 1922.

Vice-admiral.....	0		6	58	66,000	
Rear-admiral (senior).....	9	55	14	53	37,600	
Rear-admiral (junior).....	9		10		6,000	
Captain.....	74	50	138	45	288,000	
Commander.....	115	43	133	41	72,000	
Lieutenant-commander.....	201	38	360	36	556,500	
Lieutenant.....	350	34	1,012	27	1,366,920	
Lieutenant (junior grade).....	1,004	27	256	25		1,384,800
Ensign.....	320	24	112	22		320,320
Midshipmen.....	177	22	90	21		82,680
Total.....	2,259		2,131		2,392,920	1,787,770
Total increase for the year.....					606,150	

JULY 1, 1922, TO JUNE 30, 1923.

Vice-admiral.....	0		6	58	66,000	
Rear-admiral (senior).....	9	57	14	53	37,600	
Rear-admiral (junior).....	9		10		6,000	
Captain.....	75	48	143	45	306,000	
Commander.....	114	43	138	42	96,000	
Lieutenant-commander.....	201	38	360	37	556,500	
Lieutenant.....	350	34	1,067	27	1,485,720	
Lieutenant (junior grade).....	1,074	27	193	25		1,614,760
Ensign.....	243	24	110	22		204,820
Midshipmen.....	177	22	90	21		82,680
Total.....	2,252		2,131		2,553,720	1,902,220
Total increase for the year.....					661,500	

JULY 1, 1923, TO JUNE 30, 1924.

Vice-admiral.....	0		6	58	66,000	
Rear-admiral (senior).....	9	56	14	54	37,600	
Rear-admiral (junior).....	9		11		12,000	
Captain.....	74	49	146	46	324,000	
Commander.....	114	45	143	43	116,000	
Lieutenant-commander.....	201	39	859	37	863,000	
Lieutenant.....	850	35	1,060	27	1,470,800	
Lieutenant (junior grade).....	1,067	27	156	25		1,663,200
Ensign.....	243	24	141	22		167,060
Midshipmen.....	177	22	90	21		82,680
Total.....	2,244		2,126		2,570,100	1,902,630
Total increase for the year.....					676,170	

Comparison of cost—active lists of existing law and board plan for 2,000 commissioned officers below flag rank—Continued.

JULY 1, 1924, TO JUNE 30, 1925.

Grade.	Existing law.		Board plan.		Increase.	Decrease.
	Number.	Age of junior.	Number.	Age of junior.		
Vice-admiral.....	0	.....	6	58	66,000	.....
Rear-admiral (senior).....	9	56	14	55	37,500	.....
Rear-admiral (junior).....	9		10		6,000	.....
Captain.....	75	48	148	46	328,500	.....
Commander.....	113	44	141	43	112,000	.....
Lieutenant-commander.....	201	40	359	38	553,000	.....
Lieutenant.....	350	36	1,031	27	1,344,960	.....
Lieutenant (junior grade).....	1,060	27	153	25	.....	1,655,550
Ensign.....	243	24	171	22	.....	110,880
Midshipman.....	177	22	90	21	.....	82,650
Total.....	2,237	.....	2,123	.....	2,447,960	1,849,080
Total increase for the year.....	.....	.....	.....	.....	586,880	.....

Grand total increase, \$7,075,515.

NAVY DEPARTMENT,
Washington, February 20, 1908.

Average ages of officers of certain grades in the principal navies, obtained from latest sources of information.

Grade.	United States.	Japan.	Germany.	Great Britain.	France.
	Years.	Years.	Years.	Years.	Years.
Rear-admiral.....	60.7	50	53	55	55
Captain.....	58	45	47	47	55
Commander.....	51	41	42	39	47

Cost of officers retired.

[Those retired during a fiscal year counted as retired on the last day of the year—June 30.]

JULY 1, 1908.

Existing law.			Board plan.		
	Age.			Age.	
Rear-admiral (senior).....	62	11×12.9×R. P.	Rear-admiral (senior).....	62	11×12.9×R. P.
Rear-admiral (junior).....	62	4×12.9×R. P.	Rear-admiral (junior).....	62	4×12.9×R. P.
Commodore.....	58	1×15.4×R. P.			
Captain.....	50	2×20.9×R. P.			
Commander.....	41	4×27.5×R. P.			
Total.....		1,584,987.50			1,030,387.50
Decrease.....					554,600.00
JULY 1, 1909.					
Rear-admiral (senior).....	62	10×12.9×R. P.	Rear-admiral (senior).....	62	8×12.9×R. P.
Rear-admiral (junior).....	62	2×12.9×R. P.			
Commodore.....	57	2×16.1×R. P.			
Captain.....	52	2×19.5×R. P.			
Commander.....	39	6×28.9×R. P.			
Lieutenant-commander.....	30	1×35.3×R. P.			
Total.....		1,705,800.00			880,600.00
Decrease.....					825,200.00
JULY 1, 1910.					
Rear-admiral (senior).....	62	14×12.9×R. P.	Rear-admiral (senior).....	62	10×12.9×R. P.
Commodore.....	60	2×14.1×R. P.	Rear-admiral (junior).....	62	3×12.9×R. P.
Captain.....	47	2×23.1×R. P.			
Commander.....	38	4×29.6×R. P.			
Total.....		1,643,325.00			800,775.00
Decrease.....					842,550.00

JULY 1, 1911.

Rear-admiral (senior).....	62	7X12.9XR. P.	Vice-admiral.....	64	2X11.7XR. P.	\$193,050.00
Rear-admiral (junior).....	62	1X18.9XR. P.	Rear-admiral (senior).....	62	7X12.9XR. P.	507,837.50
Commodore.....	56	2X16.7XR. P.	Rear-admiral (junior).....	62	1X12.9XR. P.	58,050.00
Captain.....	46	2X22.4XR. P.	Rear-admiral (junior).....	58	11X15.4XR. P.	762,300.00
Commander.....	38	6X29.6XR. P.				
Lieutenant-commander.....	30	1X35.3XR. P.				
Total.....						1,621,337.50
Increase.....						

JULY 1, 1912.

Rear-admiral (senior).....	62	11X12.9XR. P.	Vice-admiral.....	64	1X11.7XR. P.	\$96,525.00
Rear-admiral (junior).....	62	1X12.9XR. P.	Rear-admiral (senior).....	62	5X12.9XR. P.	362,812.50
Commodore.....	55	2X17.4XR. P.	Rear-admiral (junior).....	62	1X12.9XR. P.	58,050.00
Captain.....	46	2X23.8XR. P.	Rear-admiral (junior).....	56	14X16.7XR. P.	1,062,100.00
Commander.....	38	6X29.6XR. P.				
Lieutenant-commander.....	30	1X35.3XR. P.				
Total.....						1,569,100.00
Decrease.....						203,175.00

JULY 1, 1913.

Rear-admiral (senior).....	62	4X12.9XR. P.	Vice-admiral.....	64	1X11.7XR. P.	\$96,525.00
Rear-admiral (junior).....	62	6X12.9XR. P.	Rear-admiral (senior).....	62	5X12.9XR. P.	362,812.50
Commodore.....	55	2X17.4XR. P.	Rear-admiral (junior).....	62	1X12.9XR. P.	58,050.00
Captain.....	46	2X24.5XR. P.				
Commander.....	38	6X29.6XR. P.				
Total.....						517,387.50
Decrease.....						962,887.50

JULY 1, 1914.

Rear-admiral (senior).....	62	5X12.9XR. P.	Vice-admiral.....	64	1X11.7XR. P.	\$96,525.00
Commodore.....	55	3X17.4XR. P.	Rear-admiral (senior).....	62	5X12.7XR. P.	362,812.50
Captain.....	46	4X24.5XR. P.				
Commander.....	38	8X29.6XR. P.				
Lieutenant-commander.....	31	1X34.6XR. P.				
Total.....						459,337.50
Decrease.....						1,237,800.00

JULY 1, 1915.

[illegible]

JULY 1, 1916.

	Rear-admiral (senior)	62	2 X 12.9 X R. P.	\$145, 125. 00	Rear-admiral (senior)	62	1 X 12.9 X R. P.	\$72, 862. 50
	Rear-admiral (junior)	62	3 X 12.9 X R. P.	174, 150. 00	Rear-admiral (junior)	36	1 X 17 X R. P.	861, 300. 00
	Commodore	56	2 X 16.7 X R. P.	137, 775. 00				
	Captain	45	3 X 23.8 X R. P.	240, 975. 00				
	Commander	39	8 X 28.2 X R. P.	693, 600. 00				
	Lieutenant-commander	33	1 X 32.2 X R. P.	80, 925. 00				
	Total			1, 472, 550. 00				933, 962. 50
	Decrease							538, 687. 50

JULY 1, 1917.

[illegible]

JULY 1, 1918.

Rear-admiral (senior).....	62	7X12.9X R. P.	\$507,937.50	Vice-admiral.....	64	2X11.7X R. P.	\$198,050.00
Rear-admiral (junior).....	62	2X12.9X R. P.	116,100.00	Rear-admiral (senior).....	62	7X12.9X R. P.	507,937.50
Commodore.....	53	3X19.5X R. P.	160,875.00				
Captain.....	46	2X23.8X R. P.	160,650.00				
Commander.....	40	6X28.7X R. P.	607,600.00				
Total.....			1,453,162.50				700,987.50
Decrease.....							762,175.00

JULY 1, 1919.

Rear-admiral (senior).....	62	4X12.9X R. P.	\$290,250.00	Vice-admiral.....	64	1X11.7X R. P.	\$96,525.00
Rear-admiral (junior).....	62	1X12.9X R. P.	53,050.00	Rear-admiral (senior).....	62	3X12.9X R. P.	217,687.50
Commodore.....	53	3X19.5X R. P.	160,875.00				
Captain.....	45	3X24.5X R. P.	243,062.50				
Commander.....	39	8X28.9X R. P.	693,600.00				
Lieutenant-commander.....	34	2X32.5X R. P.	143,437.50				
Total.....			1,609,275.00				314,212.50
Decrease.....							1,295,062.50

JULY 1, 1920.

Rear-admiral (senior).....	62	7X12.9X R. P.	\$507,937.50	Vice-admiral.....	64	1X11.7X R. P.	\$96,525.00
Rear-admiral (junior).....	62	2X12.9X R. P.	116,100.00	Rear-admiral (senior).....	62	3X12.9X R. P.	217,687.50
Commodore.....	51	2X30.2X R. P.	166,650.00	Rear-admiral (junior).....	54	9X18.1X R. P.	733,050.00
Captain.....	45	3X24.5X R. P.	243,062.50				
Commander.....	39	6X28.9X R. P.	520,200.00				
Lieutenant-commander.....	35	1X31.8X R. P.	77,512.50				
Total.....			1,636,462.50				1,047,262.50
Decrease.....							

JULY 1, 1921.

Rear-admiral (senior).....	62	4X12.9X R. P.	\$290,250.00	Vice-admiral.....	64	1X11.7X R. P.	\$96,525.00
Rear-admiral (junior).....	62	1X12.9X R. P.	53,050.00	Rear-admiral (senior).....	62	2X12.9X R. P.	145,125.00
Commodore.....	51	2X30.2X R. P.	166,650.00				
Captain.....	45	3X24.5X R. P.	243,062.50				
Commander.....	40	8X28.2X R. P.	676,800.00				
Lieutenant-commander.....	35	2X31.1X R. P.	151,612.50				
Total.....			1,591,425.00				241,650.00
Decrease.....							1,349,775.00

Cost of officers retired—Continued.

JULY 1, 1922.

Existing law.		Board plan.	
	Age.		Age.
Rear-admiral (senior).....	62	5×12.9×R. P.	64
Commodore.....	51	2×20.2×R. P.	64
Captain.....	46	3×24.5×R. P.	62
Commander.....	40	8×28.2×R. P.	62
Lieutenant-commander.....	36	1×31.1×R. P.	62
Total.....			
Decrease.....			
		\$362,812.50	
		168,600.00	
		248,062.50	
		678,800.00	
		75,806.25	
		1,283,481.25	
			241,600.00

JULY 1, 1923.

Rear-admiral (senior).....	62	1×12.9×R. P.	None.
Commodore.....	51	3×20.2×R. P.	
Captain.....	45	4×24.5×R. P.	
Commander.....	42	9×26.4×R. P.	
Lieutenant-commander.....	37	2×30.4×R. P.	
Total.....			
Decrease.....			
		\$72,562.50	
		249,975.00	
		330,750.00	
		720,900.00	
		146,200.00	
		1,522,387.50	
			\$1,522,387.50

JULY 1, 1924.

Rear-admiral (senior).....	62	1×12.9×R. P.	None.
Commodore.....	51	3×20.2×R. P.	
Captain.....	46	4×23.8×R. P.	
Commander.....	41	9×27.5×R. P.	
Lieutenant-commander.....	37	2×30.4×R. P.	
Total.....			
Decrease.....			
		\$72,562.50	
		249,975.00	
		321,300.00	
		742,500.00	
		146,200.00	
		1,534,537.50	
			199,087.50
			1,806,450.00

Grand total decrease, \$15,235,968.75.
 70 lieutenant-commanders (age 41) 70×27.5×R. P., \$5,043,125.

*Cost of reserve list.***Fiscal year.**

1907-8.	None.	
1908-9.	Rear-admiral (senior) 3 × shore pay and allowances.....	\$27,516.96
	Rear-admiral (junior) 1 × shore pay and allowances.....	6,995.84
	Captain 15 × shore pay and allowances.....	87,290.40
		<hr/>
		\$121,803.20
1909-10.	Rear-admiral (senior) 6 × shore pay and allowances.....	55,033.92
	Rear-admiral (junior) 2 × shore pay and allowances.....	13,991.92
	Captain 32 × shore pay and allowances.....	186,219.52
		<hr/>
		255,245.12
1910-11.	Rear-admiral (senior) 6 × shore pay and allowances.....	55,033.92
	Rear-admiral (junior) 2 × shore pay and allowances.....	13,991.68
	Captain 47 × shore pay and allowances.....	273,509.92
		<hr/>
		342,535.52
1911-12.	Rear-admiral (senior) 6 × shore pay and allowances.....	55,033.92
	Rear-admiral (junior) shore pay and allowances...	13,991.68
	Captain shore pay and allowances.....	279,329.28
		<hr/>
		348,354.86
1912-13.	Rear-admiral (senior) 3 × shore pay and allowances.....	27,516.96
	Rear-admiral (junior) 1 × shore pay and allowances.....	6,995.84
	Captain 30 × shore pay and allowances.....	174,580.80
		<hr/>
		209,093.60
1913-14.	Captain 28 × shore pay and allowances.....	162,942.08
1914-15.	Captain 25 × shore pay and allowances.....	145,484.00
1915-16.	Captain 27 × shore pay and allowances.....	157,122.72
1916-17.	Captain 14 × shore pay and allowances.....	81,471.04
1917-18.	Captain 12 × shore pay and allowances.....	69,832.32
1918-19.	Captain 11 × shore pay and allowances.....	64,012.96
1919-20.	Captain 10 × shore pay and allowances.....	58,193.60
1920-21.	None.	
1921-22.	None.	
1922-23.	None.	
1923-24.	Lieutenant-commander 36 (age 40 and 41).....	160,790.40
1924-June 30, 1925.	Lieutenant-commander 70 (age 41).....	312,648.00
		<hr/>
	Grand total.....	2,489,529.44

BOARD PLAN.*Cost of placing officers eliminated directly on the retired list instead of reserved list.*

12 rear-admirals (senior) (age 60) 12 × 14.1 × R. P.....	\$951,750.00
4 rear-admirals (junior) (age 60) 4 × 14.1 × R. P.....	253,800.00
83 rear-admirals (junior) (age 51.5) 83 × 19.9 × R. P.....	7,432,650.00
71 lieutenant-commanders (age 41) 71 × 28.2 × R. P.....	5,255,775.00
	<hr/>
Total.....	13,893,975.00

RECAPITULATION.

Increase:

May 1, 1908, to June 30, 1908.....	\$29, 635
July 1, 1908, to June 30, 1909.....	226, 050
July 1, 1909, to June 30, 1910.....	215, 820
July 1, 1910, to June 30, 1911.....	219, 820
July 1, 1911, to June 30, 1912.....	252, 790
July 1, 1912, to June 30, 1913.....	127, 930
July 1, 1913, to June 30, 1914.....	48, 390

1, 120, 435

Decrease:

July 1, 1914, to June 30, 1915.....	47, 660
July 1, 1915, to June 30, 1916.....	136, 270
July 1, 1916, to June 30, 1917.....	285, 960
July 1, 1917, to June 30, 1918.....	424, 700
July 1, 1918, to June 30, 1919.....	622, 250
July 1, 1919, to June 30, 1920.....	619, 670
July 1, 1920, to June 30, 1921.....	686, 800
July 1, 1921, to June 30, 1922.....	620, 050
July 1, 1922, to June 30, 1923.....	626, 140
July 1, 1923, to June 30, 1924.....	631, 230
July 1, 1924, to June 30, 1925.....	703, 800

5, 404, 530

1, 120, 435

Decrease..... 4, 284, 095

[No. 117.]

**TO REMOVE THE CHARGE OF DESERTION FROM THE NAVAL
RECORD OF SAMUEL E. WADSWORTH—DEPARTMENT LETTER.**

NAVY DEPARTMENT,
Washington, April 3, 1908.

SIR: Referring to your communication of the 1st instant requesting to be furnished, for the use of the Committee on Naval Affairs in the consideration of the bill (H. R. 15779) to remove the charge of desertion from the naval record of Samuel E. Wadsworth, alias William Smith, with the views and recommendations of the Department in regard to the propriety of the legislation proposed, I have the honor to state that it appears from an examination of the records on file in the Bureau of Navigation and in the office of the Auditor for the Navy Department that William Smith enlisted in the Navy at Portsmouth, N. H., November 22, 1864, as an ordinary seaman, for three years; served on board the U. S. S. *Vanderbilt*, *Potomac*, and *Richmond* until July 15, 1865, when he was transferred to the *Ohio* (but is not taken up on the rolls of said vessel), after which date no further record of his service can be found under said enlistment.

On August 2, 1904, the case of William Smith was considered with a view to the determination of a date on which he could be regarded as entitled to discharge under his enlistment of November 22, 1864, and inasmuch as there was no record of his service to be found after July 15, 1865, the Department was unable to fix a date of discharge. In this connection it might be added that Smith is properly chargeable with desertion on July 15, 1865, although not so marked on the records.

The Department sees no reason for special legislation in this case. The question whether or not such relief should be granted the applicant would appear to be a matter for the determination of the Congress.

In this connection the attention of the committee is invited to the fact that the discharge provided for is described in line 8 of the bill as an "honorable discharge." This term has, under the Navy regulations, a special meaning, and entitles a man, under certain circumstances, to pecuniary benefits, it being inserted in original discharges issued upon the expiration of an enlistment of four years as a testimonial of fidelity and obedience, and it is suggested that, if the committee should determine to report the bill favorably, the term "discharge," instead of "honorable discharge," be used.

Very respectfully,

V. H. METCALE, *Secretary.*

HON. GEORGE EDMUND FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives.*

(1065)

[No. 118.]

TO CORRECT THE NAVAL RECORD OF WILLIAM PERKINS—
DEPARTMENT LETTER

NAVY DEPARTMENT,
Washington, April 3, 1908.

SIR: Referring to your communication of the 1st instant, requesting to be furnished for the use of the Committee on Naval Affairs, in the consideration of the bill (H. R. 5735) "to correct the naval record of William Perkins," with the views and recommendations of the Department in regard to the propriety of the legislation proposed, I have the honor to state that it appears from an examination of the records that Perkins enlisted in the Navy at Boston, Mass., June 2, 1864, as a seaman, by transfer from the Army, for two years five months and twenty-five days, and served on board the U. S. S. *Ohio* until July 30, 1864, when he deserted from said vessel.

It appears from an examination of the records of the Department that on October 27, 1898, the case of Perkins was considered with a view to the removal from his record of the charge of desertion, and was rejected on the ground that the records showed that he was properly marked as a deserter, in consequence of which the Department has no authority to remove said charge.

The Department sees no reason for special legislation in this case. The question whether or not such relief should be granted the applicant would appear to be a matter for the determination of the Congress.

Very respectfully,

V. H. METCALF, *Secretary.*

Hon. GEORGE EDMUND FOSS,
Chairman Committee on Naval Affairs,
House of Representatives.

(1087)

[No. 119.]

FOR THE RELIEF OF THOMAS McELROY—DEPARTMENT LETTER .

NAVY DEPARTMENT,
Washington, April 4, 1908.

SIR: Referring to your communication of the 19th ultimo, requesting to be furnished, for the information of the Committee on Naval Affairs, in the consideration of the bill (H. R. 8481) for the relief of Thomas McElroy, with the views and recommendations of the Department in regard to the propriety of the legislation proposed, I have the honor to inform you that it appears from an examination of the records that Thomas McElroy was, on November 13, 1861, appointed an acting gunner in the Navy and ordered to duty in the Mississippi River Squadron. On November 1, 1862, he was warranted a gunner. His resignation as such was accepted January 14, 1864. On November 7, 1864, he was appointed an acting master in the Navy to date from January 19, 1864, and was ordered to Cairo, Ill., for duty. Reported at Cairo for duty December 3, 1864, and served at said station until November, 1866, when he was ordered to command the *Grampus*, and that he resigned March 5, 1868.

The Bureau of Navigation, in returning the papers with McElroy's record of service, makes the following recommendation as to the proposed legislation for his relief, viz:

There does not appear to be any reason why Mr. McElroy should be given the special consideration called for in the attached bill. There are a great number of former volunteer officers who served in the Navy with credit during the civil war who are entitled to consideration the same as Mr. McElroy. The retired list of officers of the Navy is not a pension roll and no person should be placed thereon who is not serving as an officer at the time of being so placed on the retired list.

If it is desired to give Mr. McElroy relief it appears that the proper method would be the granting of a pension.

The Bureau recommends the Department's disapproval of the proposed legislation.

The Department concurs in the views as expressed by the Bureau, and the legislation for the relief of Thomas McElroy, as proposed in the bill, is not recommended to the favorable consideration of the committee.

Very respectfully,

V. H. METCALF,
Secretary.

HON. GEORGE EDMUND FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives.*

[No. 120.]

COLLIERS.

HOUSE OF REPRESENTATIVES,
COMMITTEE ON NAVAL AFFAIRS,
Washington, D. C., March 26, 1908.

MY DEAR MR. FOSS: In view of the sentiment of several members of the Naval Committee, favoring the addition to the naval bill of two large fleet colliers, I would like to make request that you write the Secretary of the Navy for his views in this connection. It is thought desirable that the colliers should be larger than those now contemplated by the Secretary of the Navy's recommendation (6,000 tons), and it is believed as a business proposition that the size should be not less than 15,000 tons' cargo capacity; speed 10 to 12 knots, but with the reserve ability to make 16 knots. The question of beam and draft should be passed upon by the naval constructor, in order to get the requisite cargo capacity without too great draft; that is, the draft of the colliers should not exceed the draft of the battle ships or cruisers.

If you will submit this matter to the Secretary of the Navy for advice, I shall be very much obliged.

I am, very truly, yours,

GEORGE A. LOUD.

HON. GEORGE EDMUND FOSS,
*Chairman of the Naval Committee,
House of Representatives.*

NAVY DEPARTMENT,
Washington, March 30, 1908.

SIR: I have the honor to acknowledge the receipt of your letter of the 25th instant, requesting consideration of a letter from Representative George A. Loud, chairman of the subcommittee which has within its jurisdiction the matter of colliers.

2. The Department, having referred this matter to the General Board, has received from that Board the following recommendation:

The General Board has heretofore recommended fleet colliers of 5,000 tons cargo capacity until 1907, when it recommended 6,000 tons cargo capacity. Admiral Evans, as a result of long experience, including his recent valuable experience in taking the Atlantic battle-ship fleet to the Pacific, recommends fleet colliers of 5,500 tons capacity in order that one collier may coal a division of four battle ships at the end of a long run. The *Vestal* and *Prometheus*, now building, are expected to have a cargo capacity of 6,000 tons, and in the light of existing naval experience the General Board believes that to be the maximum capacity under present conditions of colliers intended to accompany the fleet and deliver directly to battle ships in the event of war.

We have two colliers of 16 knots speed now building, and two others of similar type were recommended this year. We need a certain number of these fast colliers to accompany armored-cruiser squadrons, and emergency movements of battle-ship squadrons. But we shall also need colliers which may have a less speed than 16

knots to accompany the battle-ship fleet at its cruising speed. It is the opinion, however, of the General Board that these colliers should have the same cargo capacity, viz, about 6,000 tons.

The colliers proposed by Mr. Loud have twice and one-half this capacity and "normal speed of 10 to 12 knots, but with the reserve ability to make 16 knots." This means that they must be designed and built as 16 knot ships and have the weight and power of machinery necessary to make this speed, as a vessel designed for 10 or 12 knots can not make the higher speed.

The cargo capacity proposed is too great for the best military purposes, and the delay in coaling a fleet from such very large colliers might materially hamper and impair the success of naval operations. As a concrete instance, suppose a fleet of 20 battle ships to steam at 12 knots speed 3,300 miles, taking its own colliers from which to coal at the end of that run, and suppose further that it took in one instance five 6,000-ton colliers carrying 30,000 tons of coal (the amount required, each ship needing 1,500 tons); and in the second instance, two 15,000-ton colliers carrying the same amount of coal. In the first case, upon arrival at the end of the run, the five colliers would coal the entire fleet in four days; in the second case, the two colliers would require ten days to coal the fleet. Here would be a loss of time of six days, due to the employment of heavy colliers.

The General Board believes that the above is a fair illustration of the delay and inconvenience which would be occasioned if colliers were built largely exceeding in size the cargo capacity thus previously recommended, and it is therefore unable to regard favorably the proposition advanced in the attached letter.

3. The letter referred to is Mr. Loud's letter to you.

4. The Department concurs in the foregoing opinions of the General Board.

Very respectfully,

V. H. METCALF,
Secretary.

Hon. GEORGE EDMUND FOSS, M. C.,
*Chairman of the Naval Committee,
House of Representatives.*

[No. 121.]

**TO RESTORE ROBERT EMMET CARNEY, RETIRED, TO ACTIVE LIST
OF THE UNITED STATES NAVY—DEPARTMENT LETTER.**

NAVY DEPARTMENT,
Washington, April 9, 1908.

SIR: Referring to the bill (H. R. 19935) "To restore Robert Emmet Carney, assistant engineer, U. S. Navy, retired, to the active list of the Navy," forwarded to this Department by your letter of the 28th ultimo, I have the honor to invite attention to the following facts:

Assistant Engineer Carney is at present borne on the retired list of staff officers of the Navy with the rank of *ensign*, having served on the active list (not including four years at the Naval Academy) from 1889 to December 31, 1896, when he was retired on account of incapacity, resulting from incident of service.

The bill in question provides for his appointment as a *lieutenant-commander* on the active list, provided he establish his physical, mental, moral, and professional fitness by examination pursuant to law.

Under existing law (act of June 7, 1900), "Any naval officer on the retired list may, in the discretion of the Secretary of the Navy, be ordered to such duty as he may be able to perform at sea or on shore, and while so employed shall receive the pay and allowances of an officer of the active list of the grade from which he was retired."

In view of the above facts the Department does not recommend favorable action on the bill in question (H. R. 19935).

Complete record of the service of Asst. Engineer Robert E. Carney, U. S. Navy, retired, is inclosed.

Very respectfully,

V. H. METCALF, *Secretary.*

Hon. GEORGE EDMUND FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives.*

BUREAU OF NAVIGATION, NAVY DEPARTMENT,
Washington, D. C., March 31, 1908.

Record of the service of Asst. Engineer Robert E. Carney, U. S. Navy, retired.

Dec. 5, 1868. Born in Fond du Lac, Wis.
May 21, 1885. Appointed a naval cadet.
June 7, 1889. Detached and to the U. S. S. *Iroquois* July 1.
Apr. 4, 1890. Detached and to the U. S. S. *Charleston*.
Apr. 11, 1891. Detached 23d instant and to final examination May 14.
May 27, 1891. Detached 30th instant and two months' leave.
July 1, 1891. Promoted to assistant engineer and commissioned as such from this date.
July 23, 1891. To the navy-yard, New York, August 1.
June 15, 1892. Detached 20th instant and to the U. S. S. *Boston* July 1 next.
June 17, 1892. Order 15th modified; detached July 1 and report July 7.

Oct. 14, 1893. Detached and to the U. S. S. *Independence*. (Detached and reported November 4.)

Oct. 19, 1893. Also assistant to board, Union Iron Works, November 1.

Oct. 31, 1893. Detached and to duty preparing U. S. S. *Olympia* for sea. (Detached 8th, reported January 10.)

May 10, 1894. Leave six weeks from June 15.

Jan. 17, 1895. Detached 4th, and to the U. S. S. *Olympia*, February 5.

Mar. 6, 1896. Detached and to the U. S. S. *Monocacy*. (Detached 7th, reported March 12.)

Sept. 28, 1896. Transferred to the naval hospital, Yokohama, Japan, for treatment.

Oct. 14, 1896. Detached, home and report. (Detached October 20.)

Nov. 18, 1896. Appear before naval retiring board, Mare Island, Cal., December 2, then home and wait orders.

Dec. 31, 1896. Transferred to the retired list of officers of the Navy this date on account of physical disability in line of duty, in accordance with the provisions of section 1453, Revised Statutes.

Apr. 27, 1898. To the navy-yard, Mare Island, Cal. (Reported May 6.)

Dec. 23, 1898. Detached and proceed home. (Detached January 9.)

June 17, 1902. To the office of Navy Intelligence. (Reported July 2.)

Mar. 15, 1904. Detached and to duty in connection construction naval coaling plant, San Diego, Cal. (Detached 16th, reported March 24.)

Oct. 18, 1905. Detached and to duty on board the U. S. S. *Enterprise*. (Detached October 27, reported November 1.)

Oct. 12, 1906. Detached. (Detached October 15.)

Oct. 26, 1906. To the naval station, New Orleans, La., as head of department of steam engineering. (Reported November 6.)

[No. 122.]

**TO PLACE THE NAME OF CHARLES WEBSTER UPON THE RETIRED
LIST OF THE UNITED STATES NAVY AS COMMANDER—DEPART-
MENT LETTER.**

NAVY DEPARTMENT,
Washington, April 7, 1908.

SIR: The Department has considered your letter of the 31st ultimo, forwarding, with request for recommendation thereupon, a bill (H. R. 17264) "to place the name of Charles Webster upon the retired list of the United States Navy as commander."

Section 9 of the personnel act (March 3, 1899) provides that, for the purpose of creating vacancies, a board consisting of five rear-admirals shall, as soon as practicable after the 1st day of July, select certain officers for compulsory retirement from the grades of captain, commander, lieutenant-commander, and lieutenant "as constituted on the 30th day of June of that year."

On June 30, 1907, Mr. Webster was No. 18 on the active list of lieutenants of the Navy. In pursuance of the above provision of the personnel act, he was selected for retirement and transferred to the retired list, to date from June 30, 1907, with the rank and three-fourths the sea pay of the next higher grade—i. e., lieutenant-commander. Before being notified of his selection for retirement Mr. Webster had, on the 1st and 2d days of July, 1907, passed the professional and physical examinations for promotion to the grade of lieutenant-commander. By reason of certain other retirements made in accordance with the recommendation of the board of rear-admirals, at the same time and in pursuance of the same provision of law, Mr. Webster, had he not also been selected, would have been eligible for promotion to the grade of lieutenant-commander on the active list to date from the 30th day of June, 1907.

Under the above circumstances the Department is unable to recommend favorable action on this bill H. R. 17264. In this connection it is noted that other officers who were selected for retirement at the same time as Mr. Webster would have been eligible for promotion on the active list, in the same manner, had they not been retired. In all of these cases the vacancies to which the officers in question might have been promoted on the active list did not exist until after their retirement and were created by operation of the same provision of law under which they were retired. Should special consideration be shown in one case, it would doubtless be used as a precedent by the other officers to obtain the same benefits.

It is also noted that the bill in question provides that—

When employed on active duty the said Charles Webster shall only be entitled to the pay and allowances of a lieutenant-commander in the Navy.

The word "only" as use in this provision is misleading, inasmuch as, under existing law (act of June 7, 1900), a retired officer employed on active duty receives "the pay and allowances of an officer of the active list of the grade from which he was retired," which, in the case of Mr. Webster, would be those of *lieutenant*.

Very respectfully,

V. H. METCALF, *Secretary*.

Hon. GEORGE EDMUND FOSS,
Chairman Committee on Naval Affairs,
House of Representatives.

[No. 123.]

**TO ADD THE NAME OF THE U. S. S. MAINE TO LIST OF VESSELS
TO BE REPAIRED—DEPARTMENT LETTER.**

NAVY DEPARTMENT,
Washington, March 31, 1908.

SIR: Referring to the letter of this Department, No. 24690-57, of the 11th ultimo, forwarding, pursuant to the provision contained in the naval appropriation act approved March 2, 1907, under the caption "Bureau of Construction and Repair," subhead, "Construction and repair of vessels," a list of vessels requiring general overhauling to the extent of \$200,000 or more, during the fiscal year ending June 30, 1909, or repairs during the same period which in the aggregate under all bureaus will probably exceed 20 per cent of the total value of each of said vessels, I have the honor to request that the name of the U. S. S. *Maine* be added to the above-mentioned list, as that vessel will require new boilers, general overhauling, and repairs to machinery installed, at a total cost of more than \$200,000.

Very respectfully,

TRUMAN. H. NEWBERRY,
Acting Secretary.

The SPEAKER OF THE HOUSE OF REPRESENTATIVES.

(1077)

1. The first part of the document is a list of names.

2.

3.

4. The second part of the document is a list of names.

[No. 124.]

TO AUTHORIZE THE DEPARTMENT TO UTILIZE IN NAVAL VESSELS PROPELLING MACHINERY OF ANY CHARACTER THAT MAY BE FOUND ECONOMICAL—DEPARTMENT LETTER.

NAVY DEPARTMENT,
Washington, April 10, 1908.

SIR: In view of the present and prospective development of internal combustion engines, and of the progress made in kindred lines of invention, it is believed that this Department should have authority to utilize in naval vessels propelling machinery of any character that may be found economical and efficient and that it should not, by the language of appropriations, be compelled to use machinery propelled by steam unless desirable.

I have the honor, therefore, to recommend that in pending and future acts making appropriations for naval vessels a clause to the following purport be inserted:

Provided, That the use of the words "steam machinery" as contained in this act shall not hereafter be construed as limiting the authority of the Secretary of the Navy with respect to the character of propelling machinery for naval vessels, but that any provision made by this act or otherwise for the installation of steam machinery for the propulsion of vessels shall be construed as extending to any method of propulsion which may, after thorough investigation, in the judgment of the Secretary of the Navy be for the best interests of the Government.

This recommendation is made at the instance of the board of construction, of which Rear-Admiral G. A. Converse is president, and of which the Engineer-in-Chief, the Chief Constructor, the Chief of the Bureau of Ordnance, and the Chief of the Bureau of Equipment are members.

Should the committee concur in the views herein expressed, it is particularly desired that the clause suggested be incorporated in the pending bill making appropriations for the naval service.

Very respectfully,

V. H. METCALF, *Secretary.*

Hon. GEORGE EDMUND FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives.*

(1079)

[No. 125.]

**TO PROVIDE FOR NAMING ALL FIRST-CLASS BATTLE SHIPS AND
MONITORS OWNED BY THE UNITED STATES—DEPARTMENT
LETTER.**

NAVY DEPARTMENT,
Washington, April 13, 1908.

SIR: The naval appropriation act approved May 4, 1898 (30 Stat. 390), provides:

That hereafter all first-class battle ships and monitors owned by the United States shall be named for the States, and shall not be named for any city, place, or person until the names of the States shall have been exhausted: *Provided*, That nothing herein contained shall be so construed as to interfere with the names of States already assigned to any such battle ship or monitor.

There are now on the Navy list four monitors having the names of States, viz, the *Arkansas, Florida, Nevada, and Wyoming*.

It appears desirable and appropriate that the battle ships of the Navy rather than those of the monitor type should bear the names of States, and I have, accordingly, the honor to recommend legislation repealing so much of the provision of the act of May 4, 1898, above quoted, as relates to monitors, and authorizing the changing of the names of the monitors now named for States, in order that these names may be available for assignment to vessels of the battle ship class.

I inclose herewith in a form suitable for insertion as an amendment to the naval appropriation bill (H. R. 20471) now pending in the House of Representatives a draft of a clause which it is believed if enacted will accomplish the desired end.

Very respectfully,

V. H. METCALF,
Secretary.

HON. GEORGE EDMUND FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives.*

So much of the act entitled "An act making appropriations for the naval service for the fiscal year ending June thirtieth, eighteen hundred and ninety-nine, and for other purposes," approved May fourth, eighteen hundred and ninety-eight, as provides that monitors owned by the United States shall be named for the States, and shall not be named for any city, place, or person until the names of the States shall have been exhausted, is hereby repealed, and monitors now owned by the United States or hereafter built may be named as the President may direct.

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[No. 126.]

INCREASE OF THE NAVY, ARMOR AND ARMAMENT—DEPARTMENT LETTER.

NAVY DEPARTMENT,
BUREAU OF ORDNANCE,
Washington, D. C., April 8, 1908.

MY DEAR MR. FOSS: Replying to request over the telephone for memorandum showing the amount of money probably required under the appropriation "Increase of the Navy, armor and armament" to complete the ordnance work of all vessels authorized to date, which goes down to and including the *Delaware* and *North Dakota*, I have to inclose herewith memorandum dated April 7, 1908, which shows that provided we are given the \$7,000,000 asked for in this year's appropriations we ought to have money enough to finish the armor and armament of all the vessels authorized at present.

Of course, if Congress gives us additional vessels this year, the sums mentioned in the Bureau's memorandum of February 17, 1908, which was forwarded to you by the Secretary of the Navy, should be appropriated in addition to the \$7,000,000 asked for. I think that memorandum gives the amount necessary for two battle ships, so that it can be increased as required.

Hoping this information is satisfactory, I remain,

Yours, sincerely,

N. E. MASON.

HON. GEORGE EDMUND FOSS,
House of Representatives.

NAVY DEPARTMENT, BUREAU OF ORDNANCE,
Washington, D. C., April 7, 1908.

Estimate of amount required under appropriation "Increase of the Navy, armor and armament" to complete all vessels authorized to date.

Outstanding contract obligations.....	\$7, 352, 504. 11
Materials yet to be ordered (estimated).....	1, 000, 000. 00
Total.....	8, 352, 504. 11
Labor at navy-yards to complete all ordnance apparatus (estimated).....	1, 700, 000. 00

Total amount required* to complete all vessels authorized to date.. 10, 052, 504. 11

Provision to meet this obligation has been made as follows:

Balance on hand of current appropriation.....	1, 128, 000. 00
Deficiency bill, April 7, 1908.....	2, 000, 000. 00
Estimates for the fiscal year 1909.....	7, 000, 000. 00
	10, 128, 000. 00

It is now estimated that the ordnance work in connection with all vessels authorized to date will be practically completed by the end of the fiscal year (1909) for which estimates are now before Congress. In case additional vessels are authorized at this session of Congress, it will be necessary to provide funds for their ordnance work as outlined in the Bureau's memorandum of February 17, 1908, to the Secretary of the Navy, which was transmitted to the Committee on Naval Affairs with the Secretary's letter of February 19, 1908.

[No. 127.]

TO ESTABLISH A NAVAL STATION AT PEARL HARBOR, HAWAII—
DEPARTMENT LETTER.

NAVY DEPARTMENT,
Washington, April 11, 1908.

SIR: Referring to the bill (H. R. 20308) "to establish a naval station at Pearl Harbor, Hawaii," I have the honor to inclose herewith for your consideration, and for such action as you may deem appropriate, a copy of a report, dated the 8th instant, from the Chief of the Bureau of Yards and Docks, making certain suggestions and recommendations with respect to the matter.

It is quite clear that by the bill as it stands the limit of cost of some of the features of the proposed naval station therein mentioned is placed too low. Obviously it will not be practicable to erect "all the necessary machine shops, storehouses, coal sheds, and other necessary buildings" for such a station "at an aggregate cost not to exceed \$500,000;" also that the appropriations for yard development, and particularly that for dredging, should be enlarged. Further, it would doubtless be well to leave with the Department the option to construct all or any portion of the work by contract or otherwise, as might appear most desirable in the public interest.

Whether any action should be taken at this time with regard to these matters is submitted for your consideration.

Very respectfully,

V. H. METCALF, *Secretary.*

HON. GEORGE EDMUND FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives.*

DEPARTMENT OF THE NAVY,
BUREAU OF YARDS AND DOCKS,
Washington, D. C., April 8, 1908.

SIR: The Bureau notes, on page 4562 of the Congressional Record of the 6th instant, the passage by the House of Representatives of a bill (H. R. 20308) to establish a naval station at Pearl Harbor, Hawaii. The bill was yesterday referred to the Committee on Naval Affairs of the Senate.

The language of section 3 of the bill seems to limit the execution of the work authorized to the contract method, which may prove to be not to the best interests of the Government, inasmuch as prices bid might be excessive. If the bill could be amended in the Senate to provide that the work might be done either by contract or day labor, the Government would be more independent of contractors and consequently in a position to force reasonable prices.

It is further noted that the aggregate cost of the buildings is limited to \$500,000. This provision would undoubtedly prove embarrassing. The necessary buildings could not be constructed for the amount named, nor can it now be definitely stated what amount would be necessary, inasmuch as practically nothing is now known of the local conditions, nor has the type, size, or number of buildings been fixed. If this provision remains in the bill, it would prevent the use of any general fund for any building. It is believed that Congress wishes to provide whatever is necessary to establish the station at the earliest practicable time; hence the limiting clauses should be carefully considered, in order that the intention or will of Congress shall not be inadvertently defeated.

It is further noted that the amount appropriated for dredging is \$200,000, which amount the Bureau fears will not be sufficient to start the work and keep it under way during the first year. It is believed that \$400,000 could be used; and as this is the most important of the preliminary works, it is thought advisable to request the increase.

The Bureau therefore has the honor to recommend the amendment of the bill as follows:

On page 1, lines 7 and 8, strike out the commas and the words "at an aggregate cost of not to exceed five hundred thousand dollars."

On page 1, line 11, strike out the period and add the words "for said dry dock."

On page 2, line 1, strike out the word "two" and insert the word "four."

On page 2, line 3, after the word "shops" insert "(to cost three hundred thousand dollars) one hundred thousand dollars." In the line after the word "storehouses" insert "(to cost three hundred thousand dollars)," and strike out the words "coal sheds, and other necessary," and in the next line strike out the word "buildings."

On page 2, line 5, strike out the word "fifty" and insert the words "one hundred." In the same line strike out the words "six hundred and" and insert the words "one million." In the next line strike out the words "fifty thousand."

On page 2, line 11, strike out the period and insert a comma and add the words "or may direct the construction of said works or any portion thereof under the supervision of a civil engineer of the Navy."

The provision of a larger amount toward the general development of the station is extremely important. This is to provide for starting such work as power and lighting plants, quay walls, piers, sewers, water system, grading, railroad, dredging along quay walls, quarters for officers and civilians, roads, drains, surveys, borings, preliminary plans and investigations and innumerable objects which do not suggest themselves until the necessity for them arises. The lack of a general appropriation for such objects would embarrass the Department and might greatly delay the carrying out of the project.

So far as known to the Bureau, the bill has not been before the Department for its views or for estimates of the amounts required for the various items. A copy of the bill showing proposed amendments is inclosed.

The Bureau has purposely left out the item for the coaling plant at this time for the reason that careful consideration should be given to

the amount of coal it is desirable to store, also the type of the plant, and still more important that the plant would be of no use until the dredging of the channel is completed so that vessels of deep draft could enter the harbor.

The Bureau recommends that the Naval Committee of the Senate be advised of the Department's views on the subject.

Very respectfully,

R. C. HOLLYDAY,
Chief of Bureau.

The SECRETARY OF THE NAVY.

[No. 128.]

ARMOR AND ARMAMENT FOR NEW VESSELS AUTHORIZED—DEPARTMENT LETTER.

NAVY DEPARTMENT,
Washington, April 10, 1908.

SIR. In the pending naval bill, as reported, two additional battle ships are authorized, and the Department understands that an amendment may be offered providing for two more ships of this class, making in all four additional battle ships. It does not appear, however, that the bill contains the necessary appropriations for the construction of the two additional vessels covered by the bill as it stands, and of course it does not contain any appropriation for additional vessels contemplated by the proposed amendment, nor does it appear that provision has been made for the armor or armament of any of these new vessels.

Doubtless the committee so understands; but the Department feels that it may properly bring to attention the fact that the mere authorization of additional vessels, without appropriations therefor, is not, under the restrictions imposed by general provisions of law, sufficient to warrant beginning work upon them. In the absence of such appropriations, statements made on the floor of the House and elsewhere upon authority that further discharges from the Naval Gun Factory, Washington, and at navy-yards will not be necessary, do not hold good. In point of fact, conditions are such that in the public interest many men will have to be discharged at the beginning of the next fiscal year unless appropriation is made to cover armament for additional ships. Upon this point the commandant of the Washington Navy-Yard has reported as follows:

U. S. NAVY-YARD,
Washington, D. C., April 3, 1908.

SIR: In compliance with your telephonic instructions of this date, I would confirm my telephone message to Mr. Newberry this morning to the effect "that as far as can be seen, during the present fiscal year no more discharges will be necessary, and that if Congress shall provide for four new battle ships, no discharges will probably be made within twelve months, provided that the 24 men discharged in January for lack of work and subsequently reinstated by order of the Department for sixty days are to be dropped at the expiration of that time, as they are regarded as already discharged."

The above is with the understanding that our railroad connections will not be obstructed or cut.

Respectfully,

E. H. C. LEUTZ,
*Rear-Admiral, U. S. Navy,
Commandant and Superintendent Naval Gun Factory.*

Attention is invited to the accompanying memorandum prepared from data furnished by the Chief of the Bureau of Ordnance.

Very respectfully,

V. H. METCALF, *Secretary.*

Hon. GEORGE EDMUND FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives.*

[Memorandum to accompany letter dated April 10, 1908, No. 24600-81, from the Secretary of the Navy to Hon. George Edmund Foss.]

NAVY DEPARTMENT,

Washington, April 10, 1908.

The Bureau in its annual estimates for the fiscal year 1909, under the appropriation "Increase of the Navy, armor and armament," asked for \$7,000,000 towards the armor and armament of vessels heretofore authorized. It is observed that this is the amount provided for in the bill, notwithstanding the fact that this additional new construction is authorized.

Under date of February 17 the Bureau submitted a memorandum of estimates amounting to \$7,500,000 for the first year's ordnance expenditures on 2 battle ships, 10 destroyers, and 8 submarines. This is substantially the programme authorized by the bill now before the House, and the amount referred to in the Bureau's memorandum of February 17, \$7,500,000, should therefore be added to the estimate of \$7,000,000 already submitted to Congress and provided for in the draft of the bill now under consideration. The further sum of \$3,250,000 should be added to this total amount, \$14,500,000, for the first year's ordnance work on each additional battle ship of the same type, if any, that may be added to the bill before its passage.

[No. 129.]

**MIDSHIPMEN'S STORE FUND, NAVAL ACADEMY—DEPARTMENT
LETTER.**

NAVY DEPARTMENT,
Washington, April 14, 1908.

SIR: Section 4 of the act of March 2, 1867 (14 Stat. L., 516), now section 1527 of the Revised Statutes of the United States, provides that the storekeeper at the Naval Academy shall be detailed from the Paymaster Corps and shall have authority, with the approval of the Secretary of the Navy, to procure clothing and other necessities for the midshipmen and cadet engineers, in the same manner that supplies are now furnished to the Navy. Prior to the passage of this law a civilian storekeeper provided for the needs of the midshipmen under an arrangement between himself and the officials of the academy.

To give effect to the law above quoted, the Chief of the Bureau of Provisions and Clothing, by direction of the Secretary of the Navy, issued instructions to the Superintendent of the Naval Academy, under date of April 18, 1867, directing the paymaster in charge to require \$50,000 under head of "Pay of the Navy" as a fund to be in addition to whatever sum may be paid by the paymaster in charge to the naval storekeeper for his stores, and informing him that, should a sum greater than \$5,000 be found necessary hereafter, it may be increased on application to the Bureau.

Under this authority the sum of \$24,500 was advanced out of the appropriation "Pay of the Navy, 1867," to Paymaster Gilbert E. Thornton, U. S. Navy, who had been designated as storekeeper.

The Comptroller of the Treasury, under date of October 1, 1887, held that this fund has been used in a manner not authorized by law since 1867, and suggested that Congress be asked to transfer the amount from "Pay of the Navy" to a fund to be designated as a fund for the support of the Naval Academy for the purpose of providing clothing and other necessities for the use of the naval cadets. Since that date the matter has several times been brought to the attention of the Department and to Congress, and, although some years ago a bill was introduced by Senator Hale to legalize the matter as suggested by the Comptroller, no legislative action has yet been taken.

The matter has again been brought to the attention of the Comptroller, who holds that unless the fund now used for the midshipmen's store at the Naval Academy be set aside for that purpose by the authority of Congress the original amount advanced must be turned into the Treasury to be credited to the appropriation "Pay of the Navy, 1867," and the profits, now amounting to over \$30,000, be turned into the Treasury under the head "Miscellaneous receipts." This action would greatly embarrass the authorities at the Naval Academy, and it is therefore urgently recommended that the following

provision be inserted in the naval appropriation bill now under consideration:

The Secretary of the Treasury is hereby authorized and directed to close and balance as expended the sum of twenty-four thousand five hundred dollars now standing on the books of the Treasury under the appropriation "Pay of the Navy," which was advanced by direction of the Secretary of the Navy in eighteen hundred and sixty-seven and eighteen hundred and sixty-eight, and has heretofore been used as a midshipmen's store fund at the Naval Academy: *Provided*, That hereafter the storekeeper at the Naval Academy, authorized by section fifteen hundred and twenty-seven of the Revised Statutes, shall render quarterly returns of property to the Chief of Bureau of Supplies and Accounts, under such regulations as the Secretary of the Navy may prescribe. A full report shall be made annually of receipts and expenditures by the Chief of the Bureau of Supplies and Accounts to the Secretary of the Navy: *And provided further*, That an inspection of the storekeeper's accounts shall be made quarterly by the general inspector of the Pay Corps, with such recommendation as he may deem necessary to the Chief of the Bureau of Supplies and Accounts.

This provision, if enacted into law, would involve no appropriation, but would merely authorize the continuance of a practice of forty years, which has added greatly to the efficiency of the academy and to the comfort and economy of the midshipmen. As above stated, the surplus now amounts to over \$30,000, and, under the provisions of the above-mentioned clause, the whole capital of the midshipmens' store would be carefully accounted for and could be turned into the Treasury at any time that Congress might direct.

Respectfully,

TRUMAN H. NEWBERRY,
Acting Secretary.

THE CHAIRMAN OF THE NAVAL COMMITTEE,
House of Representatives.

[No. 130.]

**MEDALS OF HONOR, ETC., FOR HEROIC SERVICES, NAVY AND
MARINE CORPS.**

[Act of December 21, 1861, 12 Stat. L., 330.]

That the Secretary of the Navy be, and is hereby, authorized to cause two hundred "medals of honor" to be prepared, with suitable emblematic devices, which shall be bestowed upon such petty officers, seamen, landsmen, and marines as shall most distinguish themselves by their gallantry in action and other seamanlike qualities during the present war, and that the sum of one thousand dollars be, and the same is hereby, appropriated out of any money in the Treasury, for the purpose of carrying this section into effect.

[Act of July 16, 1862, 12 Stat. L., 584, 585.]

Seamen distinguishing themselves in battle or by extraordinary heroism in the line of their profession may be promoted to forward warrant officers, or acting masters' mates, as they may be best qualified, upon the recommendation of their commanding officer, approved by the flag officer and the Department. Upon such promotion they shall receive a gratuity of one hundred dollars and a medal of honor to be prepared by the Navy Department.

[Act of May 17, 1864, sec. 1407 Revised Statutes.]

Seamen distinguishing themselves in battle, or by extraordinary heroism in the line of their profession, may be promoted to forward warrant officers, upon the recommendation of their commanding officer, approved by the flag officer and Secretary of the Navy. And upon such recommendation they shall receive a gratuity of one hundred dollars and a medal of honor, to be prepared under the direction of the Navy Department.

[April 21, 1864; January 24, 1865, sec. 1506 Revised Statutes.]

Any officer of the Navy may, by and with the advice and consent of the Senate, be advanced, not exceeding thirty numbers in rank, for eminent and conspicuous conduct in battle or extraordinary heroism; and the rank of officers shall not be changed except in accordance with the provisions of existing law, and by and with the advice and consent of the Senate. (Amendment, June 17, 1878, 20 Stat. L., 144.)

[June 24, 1865; June 22, 1874, sec. 1507, Revised Statutes.]

Any officer who is nominated to a higher grade by the provisions of the preceding section shall be promoted, notwithstanding the number of said grade may be full; but no further promotions shall take place in that grade, except for like cause, until the number is reduced to that provided by law.

[July 16, 1862; January 24, 1865, sec. 1508, Revised Statutes.]

Any line officer, whether of volunteers or of the regular Navy, may be advanced one grade if, upon recommendation of the President by name, he receives the thanks of Congress for highly distinguished conduct in conflict with the enemy or for extraordinary heroism in the line of his profession.

[July 1, 1870, Resolutions, sec. 1509, Revised Statutes.]

A vote of thanks by Congress to any officer of the Navy shall be held to affect such officer only; and whenever, as an incident thereof, an officer who would otherwise be retired is retained on the active list, such retention shall not interfere with the regular promotion of others who would otherwise have been entitled by law to promotion.

[July 1, 1870, resolution, sec. 1510, Revised Statutes.]

No promotion shall be made to fill a vacancy occasioned by the final retirement, death, resignation, or dismissal of an officer who has received a vote of thanks, unless the number of officers left in the grade where the vacancy occurs shall be less than the number authorized by law.

[Act of May 4, 1898, 30 Stat. L., 741.]

That the Secretary of the Navy be, and he is hereby, authorized to issue to any person to whom a medal of honor has been awarded, or may hereafter be awarded, under the provisions of the acts approved December twenty-first, eighteen hundred and sixty-one, and July sixteenth, eighteen hundred and sixty-two, a rosette or knot to be worn in lieu of the medal, and a ribbon to be worn with the medal; said rosette or knot and ribbon to be each of a pattern to be prescribed and established by the President of the United States; and any appropriation that may hereafter be available for the contingent expenses of the Navy Department is hereby made available for the purposes of this act: *Provided*, That whenever a ribbon issued under the provisions of this act shall have been lost, destroyed, or rendered unfit for use, without fault or neglect on the part of the person to whom it was issued, the Secretary of the Navy shall cause a new ribbon to be issued to such person without charge therefor.

[Resolution, June 3, 1898, 30 Stat. L., 746.]

That the Secretary of the Navy be, and he is hereby, authorized to present a sword of honor to Commodore George Dewey, and to cause to be struck bronze medals commemorating the battle of Manila Bay, and to distribute such medals to the officers and men of the ships of the Asiatic squadron of the United States under command of Commodore George Dewey on May first, eighteen hundred and ninety-eight; and that to enable the Secretary to carry out this resolution the sum of ten thousand dollars, or so much thereof as may be necessary, is hereby appropriated out of any money in the Treasury not otherwise appropriated.

[Resolution of March 3, 1901, 31 Stat. L., 1465.]

That the Secretary of the Navy be, and he is hereby, authorized to cause to be struck bronze medals commemorative of the naval and other engagements in the waters of the West Indies and on the

shores of Cuba during the war with Spain, and to distribute the same to the officers and men of the Navy and Marine Corps who participated in any of said engagements deemed by him of sufficient importance to deserve commemoration: *Provided*, That officers and men of the Navy or Marine Corps who rendered specially meritorious service, otherwise than in battle, may be rewarded in like manner: *And provided further*, That any person who may, under the provisions of this Act, be entitled to receive recognition in more than one instance shall, instead of a second medal, be presented with a bronze bar, appropriately inscribed, to be attached to the ribbon by which the medal is suspended. And to carry out the provisions of this resolution the sum of twenty-five thousand dollars, or so much thereof as may be necessary, is hereby appropriated out of any money in the Treasury not otherwise appropriated.

[Act of March 3, 1901, 31 Stat. L., 1099.]

That any enlisted man of the Navy or Marine Corps who shall have distinguished himself in battle or displayed extraordinary heroism in the line of his profession shall, upon the recommendation of his commanding officer, approved by the flag-officer and the Secretary of the Navy, receive a gratuity and medal of honor as provided for seamen in section fourteen hundred and seven of the Revised Statutes.

(See 31 Stat. L., 1108, providing that officers advanced for heroism during war with Spain shall be additional numbers.)

[Resolution of April 15, 1904, 33 Stat. L., 588.]

That in any case where the President of the United States has heretofore, under an act or resolution of Congress, caused any medal to be made and presented to any officer or person in the United States on account of distinguished or meritorious services, on a proper showing made by such person to the satisfaction of the President that such medal has been lost or destroyed through no fault of the beneficiary, and that diligent search has been made therefor, the President is hereby authorized to cause to be prepared and delivered to such person a duplicate of such medal, the cost of which shall be paid out of any money in the Treasury not otherwise appropriated.

[34 Stat. L., 35.]

Appropriation to continue distribution of medals provided by resolution of March third, nineteen hundred and one, ten thousand dollars.

NAVY REGULATIONS.

917. Life-saving medals may be awarded to persons in the Navy and Marine Corps, as follows:

(a) Gold medals to those only who, by extreme and heroic daring, have endangered their lives in saving, or endeavoring to save, lives from the perils of the sea in waters over which the United States has jurisdiction, or upon an American vessel.

(b) Silver medals (1) to those who, in cases not sufficiently distinguished to deserve the gold medal, have endangered their lives in saving, or endeavoring to save, lives from the perils of the sea in waters over which the United States has jurisdiction, or upon an American

vessel; and (2) to those who have made such signal exertions in rescuing and succoring the shipwrecked and saving persons from drowning in waters over which the United States has jurisdiction as shall be deemed to merit such recognition. * * *

(See 18 Stat. L., 127; 20 Stat. L., 165; 21 Op. Atty. Gen., 124; 22 Stat. L., 57, and 29 Stat. L., 494.)

915. (1) Seamen distinguishing themselves in battle by extraordinary heroism in the line of their profession may be promoted to warrant officers, if found fitted, upon the recommendation of their commanding officer, approved by the flag officer and the Secretary of the Navy. And upon such recommendation they shall receive a gratuity of one hundred dollars and a medal of honor prepared under the direction of the Secretary of the Navy.

(2) Any enlisted man in the Navy or Marine Corps who shall have distinguished himself in battle or displayed extraordinary heroism in the line of his profession shall, upon the recommendation of his commanding officer, approved by the flag officer and the Secretary of the Navy, receive a gratuity and medal of honor, as provided for seamen in paragraph (1) of this article.

(3) All acts of gallantry or heroism referred to in this article shall be promptly reported to the Secretary of the Navy.

916. (1) Any enlisted person in the Navy or Marine Corps may receive a medal of honor for an act of extraordinary heroism and gallantry performed in the line of his profession during the civil war, upon recommendation of his captain or commanding officer, approved by the Secretary of the Navy.

(2) The Secretary of the Navy may issue to any person to whom a medal of honor has been awarded a rosette or knot, to be worn in lieu of the medal, and a ribbon to be worn with the medal; and whenever such ribbon has been lost or destroyed without fault or neglect on the part of the owner, a new ribbon will be issued to him.

919 (1) All medals shall, when practicable, be presented by the captain at a general or special muster of the officers and crew, and shall be worn on the occasions prescribed in article 212.

(2) The captain may forbid the wearing of medals by any person undergoing punishment.

212. Enlisted men of the Navy who have received medals of honor, life-saving medals, good-conduct medals, or any other medals presented by the Government of the United States, shall wear them at general muster, Sunday inspection, and other occasions of dress ceremony.

991. Any enlisted man of the Marine Corps may receive a medal of honor and a gratuity of one hundred dollars, as provided in article 915, for distinguishing himself in battle or displaying extraordinary heroism in the line of his profession; and a medal of honor, as provided in article 916, for an act of extraordinary heroism and gallantry performed in the line of his profession during the civil war.

993. (1) All medals shall, when practicable, be presented by the commanding officer at a parade, and shall be worn on the occasions prescribed in article 212.

(2) The commanding officer may prohibit the wearing of medals by any person undergoing punishment.

[No. 131.]

**CONDITION OF SHIPS ON ARRIVAL AT MAGDALENA BAY—
DEPARTMENT LETTER.**

NAVY DEPARTMENT,
Washington, April 1, 1908.

SIR: Referring to your letter dated March 30, 1908, the Department has to state that the only report so far received from Rear-Admiral Evans relative to the condition of the ships of his fleet on their arrival at Magdalena Bay is contained in the following telegram, dated March 12:

Fleet off Magdalena Bay; will anchor there 12th, being eleven days twenty hours from Callao and two days ahead of schedule time. Fleet in better condition than when it left Hampton Roads and ready for any service in hour's notice. Target practice begins soon as ranges can be established.

It is possible, however, that the report you refer to is a letter written by Naval Constructor Robinson relative to matériel, and forwarded with certain comments by Rear-Admiral Evans. This report did not treat of the condition of the battle ships, but rather contained suggestions and recommendations, and the report is now in the hands of the board on construction.

Very respectfully,

TRUMAN H. NEWBERRY,
Acting Secretary.

Hon. GEORGE E. FOSS, M. C.

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[No. 132.]

**NECESSITY OF APPROPRIATING \$2,000,000 ADDITIONAL UNDER
"INCREASE OF THE NAVY, ARMOR AND ARMAMENT"—
DEPARTMENT LETTER.**

NAVY DEPARTMENT,
Washington, March 17, 1908.

SIR: Under date of January 7, and again on the 15th of February last, this Department reported that the appropriation "Increase of the Navy, armor and armament," for the current fiscal year was running low, and invited attention to the urgent necessity of appropriating an additional sum of \$2,000,000 under that heading, to be made immediately available.

From the last-mentioned letter the following paragraphs are quoted:

The Department desires to especially emphasize the necessity for this additional amount and to state that it should be made *immediately available*, as this appropriation is running very low and will, in fact, be exhausted about the middle of April *at the present rate of expenditures*. If this additional \$2,000,000 be not appropriated in the near future and made immediately available, it will be necessary to suspend work at navy-yards and stations as well as at private establishments on the outfits of new vessels, and stop payments of bills until July 1, when the new appropriation becomes available, and borrow from this appropriation to settle the present deficiency, thus entailing a deficiency in next year's appropriation.

If, however, the Department makes a minimum allotment of funds to pay labor at navy-yards and stations to carry on work until July 1 next, the balance available to pay bills will be exhausted about March 15 next, and it will then be necessary to suspend payment of all bills.

The contingency thus anticipated has arisen, and the Department has to-day found it necessary to suspend payment upon approved bills for armor manufactured by the Midvale Steel Company for the battle ship *Michigan*, by the Carnegie Steel Company for the battle ship *Delaware*, and by the Bethlehem Steel Company for the battle ship *North Dakota*. The Bureau of Supplies and Accounts has, since the 6th instant, suspended other bills payable out of this appropriation.

The Department is informally advised that the amount so suspended is slightly in excess of \$460,000 in the aggregate at the present time. This sum will be continually augmented under present conditions, as there will be no funds upon which to draw until the 1st of July next unless Congress shall take action to relieve the situation. The bills so held up are for armor plates manufactured in accordance with the terms of public contracts, which plates have been duly inspected and accepted by the Government. These contracts call for prompt

payment by the United States when the work is done. It is not right that the contractors should be denied the payments to which they are entitled or required to wait weeks or months for their money.

I sincerely hope that Congress will provide the additional \$2,000,000 at the earliest practicable moment. Further delay will unquestionably involve consequences of serious public importance, such as delay in the completion of vessels, followed by claims on the part of the contractors for damages, due to the failure of the United States to fulfill its contract obligations.

Very respectfully,

V. H. METCALF,
Secretary.

HON. GEORGE EDMUND FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives.*

[No. 133.]

**REQUESTING AUTHORITY TO MAKE CHANGES IN DRY DOCK No. 4
AT NAVY-YARD, NEW YORK—DEPARTMENT LETTER.**

NAVY DEPARTMENT,
Washington, April 17, 1908.

SIR: Inclosed herewith I have the honor to transmit a copy of a letter dated April 16, 1908, from the Chief of the Bureau of Yards and Docks, requesting authority to make certain changes, estimated to cost about \$417,000, in the dimensions and construction of dry dock No. 4 at the navy-yard, New York, and giving the reasons therefor.

Upon consideration of the matters stated by the Bureau, I am convinced that the alterations and improvements proposed in said dock are essential to the Government's interests, and therefore they meet with my approval, as well as the provision for doing the work either by contract or day labor, as may be found most advantageous.

Attention is invited to the Bureau's statement that no appropriation on this account is required at this session of Congress, as there is in hand an adequate balance for prosecuting the work during the next fiscal year remaining from what is already appropriated.

It is earnestly requested that this matter receive favorable consideration when the bill making appropriations for the naval service shall have been returned from the Senate.

Inclosed herewith for your convenience is a draft of a clause intended to confer the desired authority.

Very respectfully,

V. H. METCALF,
Secretary.

HON. GEORGE E. FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives.*

Draft of provision suggested for insertion in naval appropriation bill H. R. 20471, on page 31, after the period in line 17.

The limit of cost of dry dock numbered four at the navy-yard, New York, is hereby fixed at one million five hundred thousand dollars, and the Secretary of the Navy is authorized, in his discretion, to construct said dry dock by contract or day labor, or both, as he may deem to be for the best interests of the Government.

DEPARTMENT OF THE NAVY,
BUREAU OF YARDS AND DOCKS,
Washington, D. C., April 16, 1908.

SIR: In view of the increase in tonnage and dimensions of battle ships since dry dock No. 4, navy-yard, New York, was originally

designed, the Bureau considers it advisable to recommend certain changes in its dimensions and construction, as follows:

(a) *Length*.—The present dock will just take a ship of the *Delaware* class, with allowance of $2\frac{1}{2}$ feet clearance at each end, based on an estimated overhang of 12 feet for the caisson, which has not been designed. The Bureau considers that the dock should be designed to have a clearance of 5 feet at each end of the ship, not only for ease in docking, but to allow for any minor inaccuracies or changes in the construction of the dock or ship. The maximum length of dock which can be constructed on the site will take a ship 560 feet long over all, with 5 feet clearance at each end, or a ship 41 feet longer than the *Delaware* class. This additional length will provide for possible future increase.

(b) *Depth over sill*.—The depth over the sill with the present design is 31 feet mean high water, with the new design, 33 feet 6 inches, and 31 feet over the blocks. The upper keel blocks can be removed and the full depth over sill obtained. This additional depth is considered necessary to allow for docking ships in a damaged condition.

(c) *Entrance*.—The shape of the entrance has been slightly modified to provide for the increased depth over the sill and admit a ship of beam to correspond with the maximum ship which the dock can take. The maximum draft at mean high water, allowing 6 inches under the keel, which can get into the present dock, is 30 feet 6 inches, beam 86 feet. With the new design the draft is 33 feet, beam 86 feet. Drawing 29 feet of water, the old design will take a ship of 86 feet beam, and the new design a ship of 90 feet beam. The caisson for the entrance has not yet been designed.

(d) *Granite lining*.—The original design provided a dock of concrete with concrete facing. The Bureau considers it advisable in all cases to line docks with granite, and especially so in the climate of New York. The experience with the concrete-faced dry dock No. 2 at this yard has been exceedingly unsatisfactory, while the granite-lined dock No. 1 has required practically no expenditure for repairs to the dock structure. Congress at this session has authorized an increase in the limit of cost for Puget Sound dock No. 2 to cover, among other features, the change in the lining of the dock from concrete to granite.

(e) *Pump well*.—The original design contemplated for the construction of a pump well partly in the dry-dock wall with the motors below the coping level. The Bureau considers this practice objectionable. It is much more advisable to construct the pump well separate from the dock structure and at some distance from it, with the pump house and motors above ground. The recent experience with the pump well for dry dock No. 3 at Norfolk, which is in the dry dock structure and entirely below coping level, confirms the Bureau in this opinion.

(f) *Additional blocking, fittings, etc.*—The increase in the size of the ships and the consequent increase in the range of the docking keels requires additional blocking over that contemplated in the original design. This blocking, together with the conduits for electric light and air to the bottom and sides of the dock, and other miscellaneous fittings, are essential to provide a satisfactory structure.

2. The Bureau estimates that to make the changes above enumerated will cost as follows:

(a), (b), (c), (e) Increasing size of dock and changing pump well--	\$121,000
(d) Granite lining -----	264,000
(f) Additional blocking, fittings, etc-----	32,000
Total-----	417,000

While the estimated cost of the desired changes is \$417,000, as above stated, the history of dock construction at this navy-yard, the treacherous character of the soil, the inevitable contingencies, and other considerations make it advisable to fix the increase of the limit of cost at \$500,000, with the understanding that the full amount will not be expended unless it is found to be required. The limit of cost should therefore be raised from \$1,000,000 to \$1,500,000 to make the changes proposed and provide the items not included in the bid. No actual appropriation is required at this session of Congress, as there is a balance of \$553,073.65 remaining from moneys already appropriated.

3. It has been decided that under the present law this dock must be constructed by contract, and efforts have been made to place a contract for the work. An award was made on the 13th ultimo, but up to date the party receiving the award has not executed the required contract and bond, although the time allowed therefor has elapsed. Difficulty in arranging details with sureties is given as an excuse for the delay. It is possible that the efforts to secure the execution of the contract may fail and that it may be found impossible to place a contract at a reasonable figure. It is consequently believed advisable to secure authority from Congress to do the work by contract or day labor, in your discretion.

4. The Bureau therefore requests the Department's approval of the proposed changes, and recommends that Congress be asked to amend the naval bill by inserting on page 31, after the period in line 17, the following:

The limit of cost of dry dock numbered four at the navy-yard, New York, New York, is hereby fixed at one million five hundred thousand dollars, and the Secretary of the Navy is authorized to construct said dry dock by contract or day labor in his discretion.

5. It is vitally important that action be taken at the present session of Congress.

Very respectfully,

R. C. HOLLYDAY,
Chief of Bureau.

The SECRETARY OF THE NAVY.

[No. 134.]

**TO PROTECT THE UNIFORM OF THE NAVAL AND MILITARY
SERVICE OF THE UNITED STATES—DEPARTMENT LETTER.**

NAVY DEPARTMENT,
Washington, April 20, 1908.

SIR: Referring to the bill (H. R. 19545) to protect the uniform of the naval and military service of the United States, introduced by you on March 19, 1908, I am impelled, from a sense of the important effect such a measure would have on the efficiency of the service, to bring it to your particular attention in the hope that it may be reported by the committee and favorably acted upon by the Congress at its present session.

I can not overestimate the benefit to the Navy of recruiting its enlisted personnel from the most desirable class of self-respecting young men that may be had for the purpose. Every legitimate effort is being made to obtain the best available material, and the Department of necessity greatly deplores the obstacles that are placed in its way in this matter by the treatment which enlisted men too often receive when on shore and by the disrepute into which the uniform is brought through its unauthorized wear by persons not in the service.

Very respectfully,

V. H. METCALF,
Secretary.

HON. GEORGE EDMUND FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives.*

[No. 135.]

TABLE SHOWING NUMBER OF FOREIGN FLAG-OFFICERS ASSIGNED TO SEA COMMANDS AND THE COMPOSITION OF THEIR FLEETS, SQUADRONS, ETC.—DEPARTMENT LETTER.

NAVY DEPARTMENT,
Washington, April 22, 1908.

SIR: I forward herewith certain tables relating to flag-officers in the seven leading navies of the world, prepared in the office of Naval Intelligence, and I desire to invite attention to them in connection with the remarks on the subject of vice-admirals on pages 34 and 35 of my last annual report. Accompanying these tables are notes which were prepared to show how this country stands in relation to other countries in this important matter.

From these papers it would appear that to place us on an equal footing with foreign navies our Atlantic and Pacific Fleets should each be commanded by an admiral, and that each should have two vice-admirals. My recommendations, however, have been only to revive the rank of vice-admiral.

It would seem to be a most opportune time to pass the necessary legislation now, on the eve of the departure of the Atlantic Fleet for Australia, Japan, China, India, and the Mediterranean ports, where matters of precedence are of great importance. There should be, in my opinion, no feature of this great cruise of our battle fleet which will in any way detract from American prestige. If it is not commanded by flag-officers of suitable rank, our prestige will suffer.

Very respectfully,

V. H. METCALF, *Secretary.*

Hon. GEORGE E. FOSS, M. C.,
House of Representatives.

OFFICE OF NAVAL INTELLIGENCE,
April 1, 1908.

Table showing number of foreign flag officers assigned to sea commands and the composition of their fleets, squadrons, etc.

ENGLAND.

Fleets and squadrons of England.	Flag officers.					Ships.							
	Admiral.	Vice-admiral.	Rear-admiral.	Commodore.	Total.	Battle ships.	Armored cruisers.	Cruisers.	Gunboats.	Torpedo boat destroyers.	Torpedo boats.	Submarines.	Attached ships.
Channel Fleet	1	1	2	...	4	14	6	3	...	23	...	...	3
Atlantic Fleet	1	1	2	...	3	6	4	2	...	...	...	...	1
Mediterranean Fleet	1	1	1	...	3	6	4	4	...	11	...	...	3
Home Fleet	1	1	4	1	6	2	9	15	...	24	...	40	5
North America and West Indies .....	...	...	1	...	1	...	3	4	...	...	...	...	...
Eastern Fleet:													
China .....	...	1	...	...	1	...	4	2	10	7	...	...	7
Australia .....	...	1	...	...	1	...	...	3	...	...	...	...	...
Cape of Good Hope .....	...	1	...	...	1	...	...	3	...	...	...	...	...
East Indies .....	...	...	...	1	1	...	...	4	...	...	...	...	3
Total	2	7	10	2	21	28	30	46	10	65	11	40	27

Table showing number of foreign flag officers assigned to sea commands and the composition of their fleets, squadrons, etc.—Continued.

FRANCE.

Fleets and squadrons.	Flag officers.					Ships.						
	Admiral.	Vice-Admiral.	Rear-Admiral.	Commodore.	Total.	Battle ships.	Armored cruisers.	Cruisers.	Gunboats.	Torpedo boat destroyers.	Torpedo boats.	Submarines.
Mediterranean Squadron.....	1	4	5	11	3	3	3	3	3	3	3	3
Northern Squadron.....	1	2	3	3	3	3	3	3	3	3	3	3
Division of Far East.....	1	1	1	1	1	1	1	1	1	1	1	1
Total.....	2	7	9	11	12	9	6	16	4	4	4	4

GERMANY.

High Sea Fleet.....	1	2	4	7	16	4	6	7	2	4	4	4
Cruiser Squadron (Asia).....	1	1	1	1	1	1	3	7	2	4	4	4
Total.....	1	2	5	8	16	5	9	7	2	4	4	4

JAPAN.

First Squadron.....	1	1	2	2	4	1	1	1	1	1	1	1
Second Squadron.....	1	1	2	1	1	1	1	1	1	1	1	1
South China Squadron.....	1	1	1	1	1	1	1	1	1	1	1	1
Training Squadron.....	1	1	1	1	1	1	1	1	1	1	1	1
Total.....	2	4	6	8	5	8	4	4	4	4	4	4

AUSTRIA.

First Squadron (3 divisions).....	2	1	3	6	2	3	3	3	6	1	1	1
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ITALY.

Mediterranean Fleet.....	1	1	1	4	3	1	1	1	1	1	1	1
Reserve division.....	1	1	1	3	1	1	1	1	1	1	1	1
Total.....	1	1	2	7	3	1	2	2	2	2	2	2

Number of flag officers on active lists of the navies of principal naval powers.

Navy.	Admirals of the fleet.	Admirals.	Vice-admirals.	Rear-admirals.	Commodores.	Total.
England..... ^a	6	13	22	55	^a 1 ^b 6	96
Germany.....	1	5	12	18	1	36
France.....			15	30		45
Japan.....		5	20	29		54
Italy.....		1	9	16		26
Austria.....		3	3	10		16
United States.....	1			20		21

^a First class; temporary rank.
^b Second class; temporary rank.

^c One of royal family.
^d Two of royal family.

NOTES.

England, Germany, and the United States are the only countries having the rank of admiral of the fleet, or its equivalent, admiral of the navy. England has 6 officers on the active list holding this rank, while Germany and the United States each have 1, but in the case of the United States the grade was created for Admiral of the Navy George Dewey and for him alone.

All the flag-officers on the active list in our Navy, with the exception of the Admiral of the Navy, are rear-admirals, whereas it will be observed that there are three grades above this in other navies.

All of these countries named in these tables have the grade of admiral except France and the United States, England having 13 officers of this rank and Germany and Japan each having 5, Austria 3, and Italy only 1.

All of these countries, except the United States, have the grade of vice-admiral. England has 22 vice-admirals, or 2 more than we have of rear-admirals, and Japan has the same number of vice-admirals that we have of rear-admirals.

England has four and a half times as many flag-officers of all grades as we have, Japan comes next with two and a half times as many, France next with over twice as many, and Germany and Italy each have 36, or one and seven-tenths as many as we have.

The relative order of warship tonnage on November 1, 1907, according to the table prepared by the Office of Naval Intelligence, is as follows, the figures in parentheses representing to the nearest decimal the relative tonnage, taking the United States Navy as having the unit value: Great Britain (2.7), United States (1), France (1), Germany (0.9), Japan (0.6), Italy (0.3), Austria (0.2). According to the same authorities the vessels building, if completed, would slightly increase the value of the United States Navy as compared with the British and make the French navy take second place with the United States following closely in the third place. Now, assuming that the figures in parentheses above represent at the present time the relative military value of the various navies, and taking that as a guide for their needs in the matter of flag-officers, it will be seen that the only country which should have more flag-officers than ours is Great Britain; but that instead of her having four and a half times as many, she should have only two and seven-tenths times as many. Or, taking her navy list as a standard, the number of flag-officers in the United States Navy should be increased by 14 or 15. Taking the French or German navies as the standard, the number of our flag-officers might be increased by 24 or 19, respectively. Taking any one of the others as the standard would mean a greater increase. No increase in the number of flag-officers is proposed at the present time, however, but additional rank for a few of the present number is proposed in order to secure proper recognition abroad for the American people through their representatives, the commanders of our fleets and squadrons. It is not so much a question of the individual who happens to fill the position as it is that he represents the American nation. Among ourselves we honor the man for his ability and accomplishments, and it makes little or no difference to us what his rank may be, but it is entirely different when it comes to foreign intercourse.

According to the rules of international courtesy, when two flag-officers meet the one of lower rank salutes and makes the first visit. The salute to which he is entitled on leaving the other's flagship is less than the one he must give the man of higher rank when his visit is returned. Precedence in all official international relations depends upon the rank of the officers and not on the relative importance of their commands. It will readily be seen, then, since we have no flag-officers afloat above the grade of rear-admiral, that our commanders of fleets and squadrons have always been accustomed to giving more than they receive in the matter of honors and distinction and to yielding to foreigners in matters of precedence, much to the mortification of Americans who are familiar with these facts.

A remarkable fact connected with the failure of America to give its naval commanders in chief suitable rank is that for many years its Navy has been used as a school for naval officers representing European, South American, and Asiatic countries. Prominent among these countries are Prussia and Japan. About 1848 Prussia had a number of midshipmen on board American ships for instruction. Japan has sent numerous midshipmen to the United States Naval Academy, the most recent having left that institution but a few years ago. Notwithstanding the rôle of international naval teacher America has allowed her foreign pupils to outrank her own naval representatives abroad, Germany and Japan both having the grades of admiral and vice-admiral, whereas America has neither, notwithstanding its larger navy. Even Sweden, Norway, Holland, Spain, Turkey, and Brazil have both grades. Greece has the grade of admiral, and Denmark, Argentina, Chile, and Peru have that of vice-admiral. The fleet now about to visit Japan will have in it rear-admirals and captains who were instructors at the Naval Academy when certain Japanese vice-

admirals were students there. This particular case is the result of more rapid promotion in the Japanese navy than in ours, as well as to the fact that we have no vice-admirals.

The following statement concerning fleets and squadrons of various nations will, in a measure, show the disadvantage in which we are placed:

England has two fleets commanded by admirals, with a vice-admiral as second in command of each, and these are followed by 2 rear-admirals in one and 1 rear-admiral in the other. One of these fleets has 14 battle ships, 6 armored cruisers, and smaller vessels. The other has 6 battle ships, 4 armored cruisers, and smaller vessels; whereas the United States Atlantic Fleet has 16 battle ships, 4 auxiliaries, and 6 torpedo-boat destroyers, with only a rear-admiral in chief command and 3 rear-admirals in command of squadrons and divisions. There are 5 other vice-admirals in command of British fleets and squadrons.

Germany has one fleet commanded by an admiral, with 2 vice-admirals and 4 rear-admirals under him. This fleet comprises 16 battle ships, 4 armored cruisers, 6 cruisers, and 4 attached vessels.

Japan has two squadrons commanded by vice-admirals with rear-admirals as second in command, and two small squadrons with rear-admirals in command. The combined strength of these four squadrons is probably not equal to two divisions (or one-half) of the Atlantic Fleet.

If all of these Japanese ships should be assembled to greet the Atlantic Fleet, Admiral Togo would probably take command, making 1 admiral, 2 vice-admirals, and 4 rear-admirals in the fleet. Even if other vessels should be added to the ships assembled to do honor to our fleet, it is not likely that the whole assemblage will be as powerful as that fleet. With this state of affairs the disparity in rank in the flag-officers can not help but be a subject of national humiliation, for, if a country itself does not properly respect its own representatives to take a lower position than they should, will itself suffer in the estimation of foreigners. They will naturally ask why it is that such a fine fleet is not commanded by an admiral, with a vice-admiral as second in command. They might ask if the United States are too poor to pay the salaries of the higher grades, if this country were not everywhere regarded as the richest in the world: or, again, they might ask if the American people do not regard their admirals as the equals of those in other navies.

In order to be consistent with the use in foreign navies, that portion of the Atlantic fleet which is now in the Pacific should be commanded by an admiral with a vice-admiral as second in command, and 2 rear-admirals as division commanders, and the ships that are left in the Atlantic should have a vice-admiral in command.

In Australia our Atlantic Fleet will fall in, no doubt, with the commander in chief of the Australian Squadron, who is a vice-admiral. He has under his command 9 cruisers.

In China the British Squadron of 4 armored cruisers, 2 cruisers, 2 gunboats (some of these being very small river boats), 7 torpedo-boat destroyers, and 7 attached ships is commanded by a vice-admiral. On January 1, 1908, our Pacific Fleet, commanded by a rear-admiral, with 3 rear-admirals as squadron and division commanders under him, comprised 8 armored cruisers, 9 cruisers, 6 gunboats, 2 armored coast-defense ships, 5 torpedo-boat destroyers, and the *Rainbow*. In the British, German, Japanese, Italian, or Austrian navies such a fleet would probably be commanded by an admiral, with two vice-admirals under him, one in command in the Orient and the other on the Pacific coast.

Our diplomatic agents in European capitals were formerly placed in much the same relation to foreign diplomats, as our naval commanders have always been placed in relation to foreign naval officers in all parts of the world, but eventually Congress recognized that this state of affairs was beneath the dignity of the American people and detrimental to their interests, and provided for the appointment of ambassadors to the Great Powers, thereby placing this country diplomatically on a par with them in the family of nations. Since this action was taken the prestige of the country has increased greatly, and our representatives in Mexico and Brazil have been promoted to ambassadorial rank. Similar increase in prestige and weight in international councils would naturally follow the bestowal of proper rank on our naval representatives, particularly when these councils are naval in character. It must not be forgotten, however, that sometimes our naval representatives are the only ones we have in localities where great events are taking place. It will be recalled that, when our minister to Peking was besieged by the Boxers, our relations with China were largely in the hands of Rear-Admiral Kempff, followed by Rear-Admiral

Remey, who were successively in command of our naval forces at Taku. Both of these officers were outranked by foreigners. When Commodore Perry visited Japan to open up that country to diplomatic intercourse he found that rank was of the greatest importance. At that time we did not have even the rank of rear-admiral in our navy, so Commodore Perry had to permit himself to be styled as the admiral, because the Japanese understood what that meant and did not understand what a commodore was. This acquiescence on the part of the commodore to being styled by a higher title than the one he held seemed to be justified under the circumstances, as it signified to the Japanese the highest rank he could hold in the Navy. In this connection it should be remembered that Commodore Perry insisted upon the Japanese official, who was to receive from himself the copy of his credentials to convey them to Tokyo for examination, having very high rank. In such ways as this did he impress his importance upon the Japanese with the well known result.

In these days the Japanese know the difference between a commodore and an admiral and also the different grades of admirals, and when our fleet steams into the harbor of Yokohama next summer they will know full well that its commander in chief is entitled to a salute of only 13 guns whereas their vice-admirals are entitled to 15 guns and Admiral Togo to 17.

The natural tendency of the oriental is to look down on foreigners, and will not this modesty on the part of America in not giving rank to its representatives commensurate with their commands be regarded as acknowledging inferiority? Surely Admiral Togo never commanded such a powerful fleet, nor did any of the vice-admirals. When our fleet falls in with the British vice-admiral commanding a much inferior force in Australia, will not the Australians think the same thing in comparing us with the British? And will not similar thoughts occur to foreigners who understand the meaning of rank wherever this magnificent fleet falls in with them throughout the entire cruise through the Orient and the Mediterranean.

It is the custom in concerted naval actions by two or more nations for the senior officer, irrespective of nationality, to preside in councils of war, and perhaps assume command of the combined forces. It does not make any difference if this officer's own nation should have the smaller force present. The fact that he holds the higher commission is what counts, and if the nation having the larger force wants to have one of its officers occupy the commanding position, it should give him the higher rank. England can be counted on as a rule to have the ranking officer on the spot in concerted naval actions, and the United States can expect, as a rule, to have its commanding officer in second if not a lower place in such affairs, if it does not increase the rank of some of its rear-admirals.

Should, for instance, a similar concerted action as occurred during the Boxer trouble, unfortunately now become necessary, undoubtedly the senior naval officer would be British or Japanese; and although our naval forces in the Pacific are greater than those of any other country in that ocean, and, Japan excepted, are at present greater than all the others put together, a foreign officer would preside at all conferences, which would be held on his flagship at the time appointed by him; and he might even take command of the forces employed, as did Vice-Admiral Seymour in the first Peking Relief Expedition.

The United States now has two great fleets which should be commanded by admirals, and each should have two vice-admirals. The largest part of one of these is touring the world on exhibition, one of the ideas being to increase the respect of foreign nations for America. In showing these magnificent battle ships it will also bring prominently before the peoples of the earth our seeming humility in this matter of flag-officers.

Do the American people wish to proclaim to the world that there is some reason why it should not be suitably represented abroad by its naval commanders?

If they do not they should immediately authorize the President, through Congress, to commission 2 admirals and 4 vice-admirals for the two great American fleets.

[No. 136.]

**REPORT ON H. R. 4521, "TO REORGANIZE AND ENLIST THE
MEMBERS OF THE UNITED STATES NAVAL ACADEMY BAND"—
DEPARTMENT LETTER.**

NAVY DEPARTMENT,
Washington, April 24, 1908.

SIR: The Department desires to call to your attention H. R. 4521, "To reorganize and enlist the members of the United States Naval Academy Band," and the report thereon of February 24, 1908, committing the bill to the Committee of the Whole House.

The report states that the bill places the Naval Academy Band upon the same footing, as near as may be, with the Military Academy Band at West Point. The proposed measure gives the leader of the Naval Academy Band the rank, pay, and allowances of a second lieutenant, United States Marine Corps, while the leader of the West Point Band has the pay and allowances of a second lieutenant, United States Army, not mounted, but not the rank. The leader of the Marine Band has the pay and allowances of a first lieutenant, United States Marine Corps, but not the rank.

The report of the committee refers to the favorable recommendation of Secretary of the Navy Bonaparte of March 5, 1906; but while the Secretary recommended the passage of a measure to enlist the Naval Academy Band, the language of the section in question distinctly stated that "the band of the United States Naval Academy shall consist of one leader, who shall have the pay and allowances of a second lieutenant in the Marine Corps."

In this connection, attention is invited to the letter of the superintendent United States Naval Academy of April 15, 1908, and especially to the letter of the Secretary of the Navy to the chairman of the House Committee on Naval Affairs dated February 21, 1908, to which no reference is made in the committee report upon this bill.

Respectfully,

TRUMAN H. NEWBERRY,
Acting Secretary.

The CHAIRMAN COMMITTEE ON NAVAL AFFAIRS,
House of Representatives, Washington, D. C.

NAVY DEPARTMENT,
Washington, February 21, 1908.

SIR: In reply to your letters of February 8 and 13, requesting comment upon a bill (H. R. 4521) "To reorganize and enlist the members of the United States Naval Academy Band," the Department would invite attention to the fact that, if this measure be enacted into law, the bandsmen in question will at once acquire a most enviable status as to longevity pay and continuity on shore duty without having performed the naval service invariably required as a prerequisite thereto. In this respect, as well as with reference to allowing the leader the rank and pay of a commissioned officer, the proposed action

would form a precedent which could not consistently be ignored or departed from when the question should be raised by the members of the other naval bands. Indeed, the Bureau of Navigation has expressed its desire to place all navy-yard bands under the labor boards of the different yards, and to make their status the same as that of the Naval Academy Band at present—thus decreasing the number of enlisted men on shore and correspondingly increasing the number authorized for duty afloat.

In view of all the foregoing, the Department recommends that the bill (H. R. 4521) be not favorably considered.

Very respectfully,

V. H. METCALF, *Secretary.*

HON. GEORGE EDMUND FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives.*

UNITED STATES NAVAL ACADEMY,
Annapolis, Md., April 15, 1908.

SIR: I have the honor to return herewith the bill H. R. 4521, Sixtieth Congress, first session, introduced December 3, 1907, "to reorganize and enlist the members of the United States Naval Academy Band," together with the other papers on that subject recently received from the Bureau.

2. If this bill should become a law the main advantage to the bandsmen would lie in the provision for retirement, and especially for that part which credits the members with all prior service of whatever nature as members of the band. The present compensation, per man, would almost in every case be less.

3. *Pay of band under present conditions.*

	Bandmaster.	First-class musicians.	Second-class musicians.
Pay per month.....	\$100.00	\$35.00	\$30.00
Allowance for rent.....	8.00	8.00	8.00
Fuel in kind (about).....	6.50	3.25	3.25
Organist.....	25.00		
Total from Government.....	139.50	46.25	41.25
Contributions from officers and midshipmen.....	40.00	4.16	4.16
Total.....	179.50	50.41	45.41

In addition the Government furnishes uniforms as needed.

4. *Pay of band if enlisted in Navy in accordance with bill H. R. 4521.*

	Bandmaster (pay and allowance of second lieutenant, U. S. Marine Corps.)	Second leader.	First-class musicians.	Second-class musicians.
Pay per month.....	\$168.33	\$50.00	\$32.00	\$30.00
Quarters.....	24.00			
Heat and light (average).....	11.75			
Commuted ration.....		9.00	9.00	9.00
Total.....	199.08	59.00	41.00	39.00

5. It is a question whether under the wording of the bill the Treasury officials would allow increased pay for constructive reenlistment in the past. The monthly pay on subsequent reenlistments would be increased in accordance with the present laws—\$60 for outfit on first enlistment only.

6. *Pay and organization of West Point Band.*

	Number.	Pay.
Teacher of music and leader (pay of second lieutenant, not mounted).....	1	p. a. \$1,400
Musicians	12	p. m. 34
	12	p. m. 25
	16	p. m. 17

Longevity increase of pay, allowances, increase for reenlistment, etc., in accordance with the laws. On the whole the West Point Band received less than the Naval Academy Band, either now or under the proposed reorganization.

7. Should the bill become a law six of the bandsmen would immediately become eligible for the retired list, and ten others would have credit for continuous service for periods ranging from twenty to twenty-eight years.

8. I have heretofore been in favor of enlisting the members of this band because it is the only one connected with the Navy on a civilian basis, and hence its members were unable to enjoy the benefits of the retired list in common with all other bandsmen in the Navy. If, however, it is the policy of the Department to put all station bands upon a civilian basis, I consider it would be unwise to change its present status.

9. The leader of the United States Marine Band has the pay and allowances of a first lieutenant of marines, and the leader of the band at the West Point Military Academy has the pay and allowances of a second lieutenant in the Army (not mounted). Neither of these two leaders has the rank of lieutenant, and there appears to be no reason why the rank of a second lieutenant of marines should be conferred upon the leader of the Naval Academy Band; indeed, there are many practical reasons against it. There is, however, no reason why he should not receive the pay and allowances of a second lieutenant, while if it should be finally decided to enlist the band, he could be enlisted as a bandmaster in the Navy, with the special pay and allowances as provided in the bill.

Very respectfully,

CHAS. J. BADGER,
Captain, U. S. Navy, Superintendent.

The SECRETARY OF THE NAVY,
Navy Department, Washington, D. C.

[No. 137.]

"TO AUTHORIZE THE APPOINTMENT OF A. C. HIDALGO A MIDSHIPMAN AT THE UNITED STATES NAVAL ACADEMY."—DEPARTMENT LETTER.

NAVY DEPARTMENT,
Washington, April 22, 1908.

SIR: Referring to your letter of the 2d instant inclosing a bill (H. R. 19988) "to authorize the appointment of A. C. Hidalgo a midshipman at the United States Naval Academy," and requesting the views and recommendations of this Department thereon, I have to advise you as follows:

Favorable consideration of the proposed legislation is not recommended. The entrance into the Naval Academy as midshipmen of persons who are not, in a strict sense, amenable to its regulations, and for whom special modifications and relaxations of the requirements are necessary, does not meet with this Department's approval.

Very respectfully,

V. H. METCALF, *Secretary.*

The CHAIRMAN COMMITTEE ON NAVAL AFFAIRS,
House of Representatives.

(1117)

[No. 138.]

**AUTHORIZING AND DIRECTING THE SECRETARY OF THE NAVY
TO CONTRACT FOR THE PURCHASE OF A LOT OF LAND ON
HAMPTON ROADS, VIRGINIA—DEPARTMENT LETTER.**

NAVY DEPARTMENT,
Washington, April 24, 1908.

SIR: Your letter of the 21st instant, inclosing, with request for the views and recommendations of the Department in regard thereto, a bill (H. R. 20314) "authorizing and directing the Secretary of the Navy to contract for the purchase of a lot of land on Hampton Roads, Virginia, and the buildings, structures, piers, and improvements thereon, for the use of the Navy Department of the United States as a naval training station and a coaling station, and for other governmental purposes," is received.

In response I have the honor to state that the general views of the Department with respect to the purchase of the tract of land mentioned in the bill (the Jamestown Exposition grounds) for naval purposes are embodied in its report to the committee of March 18 on a somewhat similar measure, H. R. 14384. For convenience of reference, a copy of such report is inclosed.

It is noted, however, that the bill now before the Department presents the matter in a more favorable aspect from the viewpoint of naval interests. It is comprehensive and explicit as to the improvements, particularly the piers, to be acquired with the land, and it carries an appropriation of \$100,000 for the maintenance of the station. With this sum at its disposal the Department could very well avail itself of the proposed establishment should the Congress see fit to create it.

This, however, is subject to the qualifications imposed by section 355 of the Revised Statutes, which section forbids expenditures for improvements upon lands to which the United States has not acquired a valid title. By reference to lines 6 to 9, page 3, of the bill, it appears that the Government is not to acquire title to the property until final payment is made therefor, and the full appropriation for such payment is not carried by the present bill.

The omission of the words "and directed" from the fourth line of the bill (H. R. 20314) is suggested.

In this connection I deem it proper to invite the attention of the committee to the fact that in the pending naval appropriation bill (H. R. 20471) as reported to the Senate April 20 (pages 9-10) an appropriation of \$50,000 is made for "Naval training station, Port Royal, South Carolina."

Very respectfully,

V. H. METCALF, *Secretary.*

HON. GEORGE EDMUND FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives.*

(1119)

NAVY DEPARTMENT,
Washington, March 18, 1908.

SIR: Your letter of the 13th instant, inclosing, with request for the views and recommendations of the Department thereon, a copy of a bill (H. R. 14384) "authorizing and directing the Secretary of the Navy to contract for the purchase of a lot of land on Hampton Roads, Virginia," is received. The land referred to in the bill is a tract known as the Jamestown Exposition grounds, containing about 350 acres, and for its purchase the sum of \$2,500,000, or so much thereof as may be necessary, is proposed to be appropriated.

In response I have the honor to state that the property in question, if acquired by the Government, could be used to advantage for naval purposes. Its location and the climatic conditions make it especially desirable as a site for a training station, for which purpose it could, with an adequate appropriation for maintenance, at once be used, there being structures on the grounds that are available for the accommodation of recruits. The station at Newport is not sufficiently large to house all the recruits under training on the Atlantic coast, and further facilities for the purpose are needed.

While, however, this property could, if the Congress should in its discretion see fit to provide for its acquisition by the United States, be used advantageously by the Navy, the Department does not regard its purchase as necessary to the efficiency of the service, and it is not therefore prepared to recommend the enactment of the proposed measure.

Very respectfully,

V. H. METCALF, *Secretary.*

Hon. GEORGE EDMUND FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives.*

[No. 139.]

**TO MAKE \$500,000 OF THE \$6,931,153.75 UNDER "PROVISIONS,
NAVY," IMMEDIATELY AVAILABLE—DEPARTMENT LETTER.**

NAVY DEPARTMENT,
Washington, April 28, 1908.

SIR: Referring to H. R. 20471, making appropriations for the naval service for the fiscal year ending June 30, 1909, which passed the Senate yesterday afternoon, the 27th instant, I herewith inclose for your information and consideration a copy of a letter from the Paymaster-General of the Navy recommending that the sum of \$500,000 of the \$6,931,153.75 provided under "Provisions, Navy," for the fiscal year 1909 (lines 17 and 18, p. 53, of naval appropriation bill H. R. 20471, as reported to the Senate April 20, 1908), be made immediately available. The Department approves the recommendation of the Paymaster-General, and urgently requests that the desired change be made in the appropriation in question in conference if such action be practicable at this stage of the bill.

Very respectfully,

TRUMAN H. NEWBERRY,
Acting Secretary.

HON. GEORGE E. FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives.*

NAVY DEPARTMENT,
BUREAU OF SUPPLIES AND ACCOUNTS,
Washington, D. C., April 28, 1908.

SIR: 1. It is requested that the Naval Committees of the Senate and House of Representatives be asked to make immediately available the sum of \$500,000 of the \$6,931,153.75 provided under "Provisions, Navy," for the fiscal year 1909. (Lines 17 and 18, p. 53, of naval appropriation bill H. R. 20471, as reported to the Senate April 20, 1908.)

2. The Bureau is urged to make this request not because there will be any deficiency in the appropriation "Provisions, Navy," during the current fiscal year for supplies *consumed this year*; on the contrary, there will probably be an unexpended balance; but provisions sufficient to last the Atlantic Fleet on its cruise across the Pacific for a period of over four months must be provided before the fleet sails from San Francisco. All of these supplies will be consumed during the fiscal year 1909. They must be contracted for and delivered during the fiscal year 1908, and there will not be a sufficient balance in

the appropriation for this year to pay for so large a supply, which under ordinary service conditions would not be bought until after July 1 next.

3. This is in no sense a deficiency, and is requested in view of the fact that it is contrary to law to pay out of the appropriations for 1909 for supplies delivered during 1908, even though the articles are delivered in the latter part of June and not paid for until after July 1, 1908, which will be the fact.

4. If, however, this request can not, in the present state of the appropriation bill, be granted by Congress, it will be necessary to create a deficiency in "Provisions, Navy, 1908," though the appropriation for 1909 is ample for its purposes.

Respectfully,

E. B. ROGERS,
Paymaster-General U. S. Navy.

The SECRETARY OF THE NAVY.

[No. 140.]

**TO ABOLISH THE USE OF IRONS IN THE NAVY—DEPARTMENT
LETTER.**

NAVY DEPARTMENT,
Washington, April 28, 1908.

SIR: I have the honor to invite your particular attention to the following provision contained in the naval appropriation bill as it passed the Senate on the 27th instant:

That the use of irons, single or double, as a form of punishment in the Navy of the United States, whether imposed by a naval commander or the judgment of a summary court or court-martial, is hereby abolished.

As appears from the Congressional Record of April 23, 1908, this amendment was proposed by Mr. Nelson and agreed to by the Senate without discussion, the only matter taken into consideration being certain communications presented by Senator Nelson (and printed in the Record), in which the use of irons is branded as "brutal and degrading," and compared to "that relic of barbarism, previously abolished by law, of 'flogging on the bare back.'"

Should the Congress decide to abolish the use of irons in the Navy the Department must, of course, be governed accordingly; but it is respectfully submitted that a step of such importance to the service should not be taken until after thorough consideration of the subject and investigation of the conditions as they actually exist. From its knowledge of these conditions the Department is impelled to earnestly recommend that the Nelson amendment above quoted be struck from the naval bill before final action is taken thereon.

While it is not practicable to review the entire subject in this letter, the following facts and considerations are presented in support of the Department's attitude:

1. The crew of a battle ship numbers about 750 men. For the safety of the crew, as well as of the gun sights and other delicate mechanisms of the ship, it is absolutely necessary at times that members of the crew be put in restraint—for example, those who return from liberty drunk and refractory, and inclined to create disturbance. However, our largest battle ships are fitted with a maximum of three cells, their dimensions being about 6 feet long by 3½ feet wide. To put more than one man in a cell endangers health, life, and limb. The practice, therefore, is to place them in irons, single or double, under sentry's charge, in the splinter-deck passages where there is air and room to walk about. Under the circumstances stated this action is not only necessary, but is more humane than to confine the men in cells. Furthermore, a number of drunken men without irons will almost certainly fight among themselves or attack the sentry and commit crimes which lead to general court-martial and years of confinement in prison; so that, for this reason also, it is to the interest of the men that the present practice be not abolished.

2. The use of irons is as old as the Navy itself, and for this reason, and because of the different conditions, the single fact of having been placed in irons for restraint brings no disgrace to the man among his comrades as it would in civil life.

3. As a rule, irons are not resorted to for purposes of punishment only, such use being limited to serious cases, as will be seen by reference to article 1828, paragraph 2, of the Navy Regulations, which reads as follows:

Confinement in double irons is a severe punishment, and, as a rule, should not be resorted to, at least not for any considerable period, except where the offense has been grave or the offender has given indications of being incorrigible after the infliction of milder punishment.

4. Referring to the statement contained in the papers presented by Senator Nelson, that the use of irons "was abolished in the Army long ago," attention is invited to the following paragraph of the Army Regulations, December 31, 1905:

942. Prisoners will not be placed in irons except pursuant to sentence of a court-martial, or in the extraordinary case of a prisoner who, in the judgment of the commanding officer, is a desperate or dangerous character, in which case report of action and the circumstances will be immediately made to the department commander. A prisoner may be shackled or handcuffed while being transported from one post to another, or from a post to a penitentiary when, in the judgment of the officer in charge, the escape of the prisoner can not otherwise be prevented.

It is believed that, from the facts already stated, it is sufficiently clear that the damage which may be done by even a "desperate or dangerous character" on shore is but slight compared to that which would certainly result on board of a vessel of the Navy should this amendment be enacted, depriving the captain of the power to use practically the only means under his control to place in restraint unmanageable members of the crew.

Very respectfully,

TRUMAN H. NEWBERRY,
Acting Secretary.

HON. GEORGE EDMUND FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives.*

[No. 141.]

PLACING M. H. PLUNKETT, ASSISTANT ENGINEER, UNITED STATES NAVY, ON THE RETIRED LIST WITH AN ADVANCED RANK—DEPARTMENT LETTER.

NAVY DEPARTMENT,
Washington, April 27, 1908.

SIR: In compliance with the request contained in your letter of the 24th instant, I have the honor to submit herewith the following statement respecting the bill (H. R. 8277) "placing M. H. Plunkett, assistant engineer, United States Navy, on the retired list with an advanced rank:"

On June 4, 1864, Second Assistant Engineer Plunkett was ordered to examination for promotion, and the examining board in his case reported that he was affected with heart trouble, general debility, and a tendency to tubercular disease of the lungs, which unfitted him for sea duty. The board also reported that, in its opinion, his physical condition originated in the line of duty. His orders to sea duty were revoked on account of the findings of this examining board. On May 9, 1865, his resignation as a second assistant engineer in the Navy was accepted. He states that his resignation was caused on account of ill health, which barred him from promotion in the Navy; that he requested to be appointed an assistant engineer on the retired list, which was done on June 22, 1874, in accordance with an act of Congress, approved June 22, 1874, on account of continued ill health which was caused by his service in the Navy, and which rendered him unfit to follow a civil career. He was placed on the retired list with the same rank he held while in active service.

Mr. Plunkett was excluded from the benefits conferred by a clause contained in the naval appropriation act of June 29, 1906, relating to the advancement of retired officers, by the fact that he was, on June 22, 1874, "restored to the Navy and placed on the retired list by virtue of the provisions of a special act of Congress."

While believing that the question whether the clause of the act of June 29, 1906, above mentioned, should be extended by special acts applicable to individual cases is one that should appropriately be left to the determination of the Congress, if it be determined that such extension should be so made this Department recommends that the act under consideration, for the relief of Mr. Plunkett, be favorably considered.

Very respectfully,

TRUMAN H. NEWBERRY,
Acting Secretary.

Hon. GEORGE EDMUND FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives.*

[No. 142.]

NAVY BANDS—DEPARTMENT LETTER.

NAVY DEPARTMENT,
Washington, April 29, 1908.

SIR: The Department desires to invite attention to the following provision embodied in the appropriation bill for the fiscal year ending June 30, 1909:

Navy bands or members thereof shall not receive remuneration for furnishing music outside the limits of military posts when the furnishing of such music places them in competition with local civilian musicians.

2. Under present conditions it is found impracticable to fill navy-yard bands and bands afloat. This is due to the fact that only United States citizens can be enlisted and that the pay musicians are receiving is entirely inadequate. Musicians, first class, receive \$32 per month and musicians, second class, \$30 per month, and it has been demonstrated that they can not clothe and support themselves and their families upon such remuneration. In consequence the more talented men have left the service, and there is a perpetual struggle to replace them by others. The fact that musicians can, by working outside when their services are not required by the Government, eke out their slender official income has operated to keep men in the service who otherwise would be compelled to leave it. If the amendment quoted stands, it may be conservatively assumed that the pay of bandsmen must be doubled before United States citizens possessing the necessary musical knowledge and technique can be induced to enlist and remain in the service.

3. In view of the above embarrassing conditions, it is recommended that the provision which prevents navy-yard bandsmen from receiving remuneration for furnishing music outside the limits of military posts be eliminated from the bill.

Respectfully,

TRUMAN H. NEWBERRY,
Acting Secretary.

Hon. GEORGE E. FOSS, M. C.,
Chairman House Naval Committee, Washington, D. C.

[No. 143.]

UNITED STATES NAVY.

Alleged Structural Defects in Battle Ships.

**SUPPLEMENTARY STATEMENT OF CHIEF CONSTRUCTOR CAPPS
WITH LETTER OF THE SECRETARY OF THE NAVY TRANS-
MITTING.**

NAVY DEPARTMENT,
Washington, April 15, 1908.

MY DEAR SENATOR HALE: There is forwarded herewith the supplementary statement of the chief constructor in relation to certain alleged defects in battle ships of the United States Navy. The Department's letter to you, under date of March 9, 1908, fully expressed its views concerning this subject, and subsequent reports received from the commander in chief of the Atlantic Fleet and the naval constructor attached to his staff have strengthened the conviction which I previously entertained with respect to the location of water-line armor, height of freeboard, height of gun axes, etc. Admiral Evans in his recent report makes allusion to the inability to fight the broadside guns under certain conditions of weather, and states that such guns are not high enough for efficiency under all conditions. This criticism is likewise applicable to the majority of broadside guns of battle ships of all navies wherever such guns are mounted below the main deck, as is the case with the British, Japanese, and German navies. It may be remarked, in passing, that such a location is the only available one for the majority of the guns of the intermediate battery on all battle ships built or building, and in the United States Navy the height of such secondary battery guns above the water is somewhat greater than the height of similarly located guns in the majority of battleships of the British, German, and Japanese navies. In our battle ships of the *Delaware* and *South Carolina* classes, now in course of construction, this criticism concerning intermediate battery guns has little force, inasmuch as the main battery is concentrated in heavy guns mounted in turrets on the upper decks, the intermediate battery being required solely for defense against torpedo-boat destroyers and torpedo boats.

In view of the misunderstanding which seems to exist in some quarters as to the degree of responsibility of Admiral Converse and the chief constructor for alleged defects in battle ships now attached to the Atlantic Fleet, it seems proper for me to emphasize definitely the fact that neither Admiral Converse nor Admiral Capps had any

responsibility whatever for the designs of battle ships now in active service, and therefore the exhaustive reports of those officers concerning alleged defects in naval matériel should be accepted without qualification as being the impartial reports of officers who have no personal responsibility for the designs of the ships of the fleet recently under criticism, but whose official position gives them unusual opportunity to know all the facts pertaining to the method of developing designs of those vessels, and the good results which have so far been obtained in their subsequent construction.

There are also forwarded herewith, for the information of your committee, copies of the recent reports of Admiral Evans and Naval Constructor Robinson concerning the behavior of vessels of the Atlantic Fleet during the passage from Hampton Roads to Magdalena Bay, also their comment for the information of the Department in connection with future design work. Practically all of the criticism contained in these reports had already been discounted and disposed of in the designs of the *Delaware* and *North Dakota* class. Although detailed comment upon the above-noted reports is now in course of preparation by the board on construction, I have deemed it advisable to forward the reports at this time for the general information of the committee, although it is my opinion that they should not be published, and certainly not in advance of the preparation of the detailed comments thereon.

Very truly, yours,

V. H. METCALF,
Secretary.

HON. EUGENE HALE,
*Chairman Committee on Naval Affairs,
United States Senate.*

NAVY DEPARTMENT,
BUREAU OF CONSTRUCTION AND REPAIR,
Washington, D. C., April 13, 1908.

SIR: In conformity with the request of the committee, I have the honor to submit the following supplementary statement concerning certain matters relating to naval matériel. In order that this statement may be as brief as possible, no attempt will be made to cover ground which has already been fully covered, except where further comment may appear to be necessary for the complete and comprehensive disposition of such criticism as may not have been already disposed of. No attempt will be made to traverse, in detail, the evidence of critics who have appeared before the committee, since it is understood that this is not desired. Failure, therefore, to take note of such criticism should not be construed as indicating that such criticism is founded on fact.

It also appears to be desirable, at the very beginning of this supplementary statement, to emphasize the fact that practically all of the criticism to which our battle ships have recently been subjected is directed against *completed vessels*, and does not apply, to any material extent, to vessels which have been designed during the past four years. The only criticism directed at the vessels of the *Delaware* class, for instance, is that affecting the submergence of the lower

edge of the main water-line belt armor, and the original criticism with respect to the location of this armor has been so materially modified as to be negligible, and would appear to have been fully and completely disposed of by the letter of the Secretary of the Navy to the chairman of the Senate Naval Committee under date of March 9, 1908, and by subsequent specific comment of Admiral Evans, commander in chief of the Atlantic Fleet, in his letter of March 6, 1908.

The location of the water-line belt armor on the *South Carolina* and *Michigan* being practically identical with that of similar armor on the *Delaware* and *North Dakota*, the disposition of such criticism with respect to the *Delaware* necessarily includes the *South Carolina* and *Michigan*.

It is true that the freeboard forward on the *South Carolina* is lower than that on the *Delaware*, and the freeboard aft is one deck height less than the after freeboard on the *Delaware*. It should be specially noted, however, that the *South Carolina* and *Michigan* were designed to meet the specific provision of the act of Congress for the most powerful battle ship on a trial displacement of 16,000 tons. That the designers of the *South Carolina* and *Michigan* met these requirements of Congress in a most satisfactory manner would seem to be fully proved by the unusually commendatory comments concerning this design which have appeared in foreign publications, already quoted in the chief constructor's special report of February 14, 1908, and by specific and direct approval of seagoing officers of our own Navy. A recent evaluation (prepared by a foreign naval officer) of the fighting strength of battle ships of the principal navies of the world ascribes to the *South Carolina* the maximum fighting efficiency of any ship considered, the United States *South Carolina* being placed as No. 1, with the British *Dreadnought* as No. 2. This will doubtless be considered by certain critics as a too partial judgment of the good points of the *South Carolina* as compared with the *Dreadnought*. It is well to remember, however, that the broadside battery of the *South Carolina* is equal to that of the *Dreadnought*, the target area is less, and the armor protection unquestionably greater, the points of inferiority being those of speed and, in a heavy seaway, a freeboard which would place the *South Carolina* at a slight disadvantage as compared with the *Dreadnought*.

With respect to the freeboard of the *South Carolina*, it should be noted that the freeboard forward is practically identical with that of the latest Japanese battle ships, and also almost identical with that of battle ships of the highest freeboard now attached to the Atlantic Battle Ship Fleet. It is also equal, or superior, to that of all battle ships of the Japanese navy which participated in the battle of the Sea of Japan, and is approximately equal to the freeboard of the large majority of the battle ships of the British navy designed prior to 1905. The freeboard aft is in conformity with the design of battle ship most highly approved by the Walker board in 1896, also by the general board in 1903 and 1904, so that the general features of the *South Carolina* class, so far as concerns freeboard, both forward and aft, would appear to have met with the entire approval of some of the most distinguished seagoing officers of the United States Navy.

The battery arrangements of the *South Carolina* and *Delaware* classes are such as to give the maximum broadside fire for the heavy

guns, and in this respect these vessels have a distinct advantage over foreign battle ships whose battery arrangement has been developed on different lines.

In view of the very complete data already submitted for the consideration of your committee, it does not appear to be necessary to devote further attention to the characteristics of the *South Carolina* and *Delaware* classes.

With respect to the general criticisms which have been made concerning the disposition of water-line belt armor, freeboard, height of gun axes, etc., on battle ships now attached to the fleet, it would seem that the committee had already been fully advised as to the facts. It appears, however, that there are those who lay special stress upon the insufficient height of the after heavy guns of vessels of the *Iowa*, *Alabama*, *Maine*, *Mississippi*, and *South Carolina* classes, and who claim that that feature of those vessels is gravely in error. In this connection, it seems only necessary to invite attention to the fact that the Walker board in 1896 specially commended the arrangement of freeboard on the *Iowa*, and for the battle ships then under consideration by that board recommended that—

They should have high freeboard forward and low freeboard aft, substantially like the *Iowa*.

Also, the general board, in a communication dated December 15, 1903, in which it set forth the characteristics which should be embodied in battle ships of about 16,000 tons, stated specifically that they should—

Have high freeboard forward. In this respect the *Iowa* type impresses favorably.

It is worthy of note that all the military and seagoing characteristics of each battle ship built for the United States Navy have been passed upon by a board of officers, a majority of whose members belong to the seagoing branch of the Navy, and that the designs of each battle ship are approved by the Secretary of the Navy before advertisement for their construction is made.

It may also be noted that officers who have commanded vessels of this type have reported that all the guns of the main battery could be fought in any weather in which battles are likely to be fought. Reports have also been recently received from the commander in chief of the Atlantic Battle Ship Fleet, and the naval constructor attached to his staff, which state that while a somewhat higher turret gun forward would be desirable to fight with full efficiency at 15 knots in a "trade-wind" sea, no weather was encountered on the recent voyage of the Atlantic Fleet where turret guns would be out of action, except so far as flying spray in a few cases might have affected the gun sights—this last condition, however, being one which a few additional feet freeboard forward would not remedy.

The report of the chief constructor, of February 14, 1908, and the appendixes thereto, which are part of the testimony before your committee, give in considerable detail the principal characteristics of the battle ships of the United States Navy, as well as those of typical battle ships of foreign navies. The heights of freeboard, heights of gun axes, and location of water-line armor therein set forth, were determined with the greatest accuracy possible, and, subject to the correction of minor errors—principally typographical—the data

therein contained is believed to be as accurate as can be determined from the information accessible to the Navy Department and its Bureaus and offices.

The tables above referred to show that the battle ships now in commission in the United States Navy are in no sense at a disadvantage as to freeboard, gun heights, and arrangement of armor as compared with vessels of the principal foreign navies.

As distinctly stated, the data given in the tables was for the "designed" displacement, in as much as the most accurate information available concerning foreign ships was based upon that displacement. The "deep-load" characteristics for battle ships of our own and foreign services would vary in approximately the same degree as those given for the "designed" displacement in the table.

It is believed that in certain foreign designs full allowance of ammunition and stores is provided instead of the two-thirds allowance provided for American vessels, but this would not ordinarily involve a difference in draft, freeboard, etc., of more than 4 inches. On the other hand, the coal carried at designed displacement in the very large majority of foreign battle ships is no greater than that carried by battle ships of the United States Navy, and is in many cases less, as is fully set forth in the table given in Appendix A.

It should also be noted that any attempt to determine the overdrafts of vessels by taking the recorded "log" drafts and making allowance for the difference between the actual coal reported on board and the coal provided to be carried on the designed displacement, is entirely misleading and inaccurate. Such a method, as ordinarily carried out, involves errors due to inaccuracies in the recorded log draft; errors due to differences in density of water; errors due to failure to take into consideration the actual stores, ammunition, etc., on board; errors due to inaccurate log reports as to coal actually on board; failure to take into account the excess water in trimming tanks, double bottoms, etc.—this last-named item alone, on certain battle ships of the Atlantic Fleet during the recent voyage to the Pacific Coast, having involved as much as 500 to 800 tons additional weight. Any estimate of overdraft, therefore, based upon the draft of the ship and the amount of coal on board, as recorded in the log, would seem to be too obviously inaccurate to require further comment.

The actual overdrafts of vessels of the United States Navy, as compared with their designed drafts, are carefully and accurately determined immediately after delivery of the vessels to the Government, so that the errors noted in the preceding paragraph are entirely eliminated. Accurate data so obtained shows that, of the battle ships now attached to the Atlantic Fleet, the *Virginia* had the greatest overdraft as compared with her designed draft—the overdraft in the case of the *Virginia* being 11 inches. The maximum overdraft of the other vessels of the *Virginia* class was $9\frac{1}{2}$ inches. The overdraft of the five vessels of the *Connecticut* class varied from $4\frac{1}{2}$ to 6 inches. The overdraft of the other seven battle ships of the fleet was $3\frac{1}{2}$ inches for the *Alabama*, $3\frac{3}{4}$ inches for the *Missouri*, and 6 inches for the *Ohio*, $7\frac{1}{4}$ inches for the *Kearsarge*, *Kentucky*, and *Illinois* and $9\frac{1}{4}$ inches for the *Maine*.

As noted in previous reports and testimony, the overdrafts of United States battle ships were largely due to changes and additions which were made after the approval of the designs, and, in many in-

stances, after the actual construction of the vessels had been advanced to a considerable extent: and where there were differences in overdrafts on sister ships these differences were largely attributable to difference in type of boilers and details of machinery installation.

Before dismissing the subject of overdrafts of battle ships, it is worthy of special note that the last three battle ships completed, namely, the *New Hampshire*, *Idaho*, and *Mississippi*, have been constructed quite within the designed estimates of weight, so that those vessels will be slightly *underdraft* instead of overdraft. In explanation of this condition, it is merely necessary to state that the development of details and the changes authorized on those vessels subsequent to the approval of the designs were such as to not materially increase the displacement of the vessels.

The completion of battle ships, or any other class of ships, within the "designed" displacement is almost entirely a question of adhering to the original features of design. If radical changes are made in the design, involving large additional weight, overdraft for the completed vessel must inevitably be expected.

In view of the foregoing statements, and the mass of evidence already offered concerning the location of waterline armor on battle ships, it would seem quite unnecessary to dwell further upon this phase of recent naval criticism, so that I will dismiss it by quoting the following extract from the latest communication on this subject, contained in a letter addressed to the Secretary of the Navy by the commander in chief of the Atlantic Fleet, under date of March 17, 1908:

Even with smooth seas and practically no wind the swell at times caused such rolling and pitching as to *expose the lower portion of the armor belt even at heavy load, hence the lower limit of armor should not be raised.* (*Italics not author's.*)

The above is too definite and conclusive to require any comment other than that those vessels were, in many instances, heavily overlaid, and the lower edge of the armor was therefore immersed in many cases more than 7 feet.

FREEBOARD AND GUN HEIGHTS.

The data already submitted to the committee with respect to freeboard, both on our own and foreign battle ships, would seem to be quite sufficient to preclude the necessity of making extensive allusion thereto in this supplementary statement. The present tendency in battle-ship design is to concentrate the heavy battery in turrets mounted upon the upper deck, and, for our latest vessels, those of the *Delaware* class, to have a freeboard forward one deck height higher than was formerly the case. The major part of the intermediate battery for torpedo defense must of necessity be mounted "between decks."

The tables already submitted give accurate data concerning the freeboard, gun heights, etc., of United States and typical foreign battle ships, and the most casual inspection of such tables indicates that the United States is at no disadvantage with respect to freeboard and gun heights as compared with battle ships of foreign navies. The low freeboard aft on certain United States battle ships has already been considered and disposed of, and requires no further attention.

It is worthy of note that an officer who has only recently returned from Japan, and who has had unusual opportunity to communicate with Japanese naval officers, confirms the statement previously made, that the most recent design of Japanese battle ships provides for a moderate freeboard, approximately equal to that of the *Connecticut* class, and that for designs in prospect, which contemplate a vessel even larger, the Japanese have no intention of increasing their height of freeboard. The latest design of battle ship in the United States Navy, it may be noted, has more than 5 feet greater freeboard forward than the latest designed Japanese battle ship.

TRIAL TRIPS OF NAVAL VESSELS.

Judging from questions asked by various members of the committee, and the replies thereto by witnesses, there would seem to be a very imperfect understanding in the minds of many as to the contract requirements for trial trips of naval vessels, and the rigor with which such contract requirements are enforced. At the request of the committee there are hereto attached a copy of the contract for the *Delaware* and a copy of the contract for the *Louisiana*. (Appendixes B and C.)

Allusion having been made during the progress of this investigation to the practice of the Navy Department of giving bonuses for speed in excess of the contract requirements, it should be noted that the contracts for naval vessels have contained no provision for the granting of a speed bonus since January, 1894, more than fourteen years ago. None of the battle ships now attached to the Atlantic Fleet were subject to bonuses for speed in excess of the contract requirements.

It would also appear that there are those who believe that naval vessels never attain in actual service the speed called for by the contracts for those vessels. As a matter of fact, not only is the contract speed of United States naval vessels attained during the official trial under the rigidly enforced conditions specifically provided in the contract, but with boilers and machinery in good condition and with clean bottoms, the "contract speed" has been attained in actual service by a large number of naval vessels when much more heavily loaded than they were during their contract trials. With hull and machinery in the condition just indicated, and engines developing the horsepower which was actually obtained on their trial trips, the majority of United States battle ships could attain their contract speed with *all stores on board and bunkers full of coal*. The *Minnesota*, a representative of the five most recently designed battle ships now attached to the Atlantic Fleet, has since delivery to the Government, and with a naval crew, exceeded by more than eight-tenths of a knot the speed required by the contract, and this with all stores and ammunition on board and bunkers nearly full of coal.

As a matter of fact, the contract trials of vessels built for the United States Navy are most carefully conducted, the vessels being loaded to such a draft that the mean displacement during the official trial will be that required by the contract. Judging by reports contained in scientific journals, many vessels of the British navy have been tried at a displacement considerably less than their designed displacement. Such a condition has never obtained in the contract

trials of United States naval vessels; and should a United States naval vessel when subjected to trial be lacking in any portion of the armor, armament, outfit, fittings, ammunition, stores, etc., allowance therefor is made by the addition of an equivalent weight of water in the double bottoms or trimming tanks, or by placing an additional allowance of coal in the bunkers.

So far as the designer is concerned, there would be no difficulty whatever in having the contract trials conducted at the deep-load displacement, with all stores and ammunition on board and the bunkers full of coal, rather than at a less displacement with a certain proportion of stores and ammunition on board and an arbitrary amount of coal in the bunkers. If such a method should be adopted, however, the Navy Department would not derive any benefit therefrom, since allowance would necessarily be made for the anticipated decrease in speed which such an increase in displacement would involve. Moreover, the data so obtained would not be comparable with that obtained from similar vessels previously tried in the United States Navy, as well as in foreign navies, and in any comparison resulting therefrom the vessels of the United States Navy, when tried at their deep-load displacement, would appear at a disadvantage as compared with foreign vessels tried at a displacement considerably less than the deep-load displacement.

It is worthy of special note, however, that the difference in speed due to difference in displacement of the vessel at trial load and deep load would not be the "two or three knots" mentioned in the testimony before the committee. As a matter of fact, for battle ships now attached to the United States Atlantic Fleet, as well as those in course of construction, the speed at deep-load displacement, with all stores, ammunition, etc., on board and bunkers full of coal, would rarely be as much as one-third of a knot below that at the trial displacement when the engines were developing the same horsepower. This reduction of one-third of a knot in speed would be approximately the maximum and would only occur at high speeds. At low speeds the reduction due to increase in displacement would be proportionately less, the horsepower, of course, being assumed to remain the same at the trial and deep-load displacements.

In this supplementary statement I have merely attempted to bring out more clearly facts which would assist the committee in arriving at correct conclusions concerning the characteristics of battle ships of the United States Navy and the conditions under which their designs have been developed. The somewhat extensive allusion that has been made in previous reports and in the testimony to foreign practice, and especially to the case of the *Royal Sovereign*, was deemed necessary in order that the committee might fully understand foreign procedure in such matters. The case of the *Royal Sovereign* was given particular prominence on account of the very extensive technical criticism which the designs of that vessel received. The comments contained in the report of the chief constructor of February 14, 1908, and the diagrams and tables thereto attached, should leave no possible doubt in the mind of anyone as to the characteristics which it was desired to specially emphasize in connection with the considerations of the designs of the *Royal Sovereign* class. These were obviously "height of freeboard," "height of gun axes," and "location of

the lower edge of the water-line belt armor." That the vessels of the *Alabama*, *Maine*, *Idaho*, and *South Carolina* classes had low freeboard aft, had no particular bearing upon the case, especially since the fact that these vessels had a low freeboard aft, was fully set forth in the tables. Nor was it a matter requiring special note that the upper belt armor of certain groups of battle ships in the British navy was of the same thickness as the lower belt armor, especially when twelve battle ships in the British navy, whose upper belt was of the same thickness as the lower belt, had main water-line armor whose maximum thickness was just equal to or less than the upper belt armor of the *Vermont* class. All the pertinent facts in the case were fully set forth in the text or the tabular statements, and unless the text of the report had been extended to quite unjustifiable length it has to be assumed that those who may desire to indulge in criticism will take the trouble to look over the tabular data and appendices as well as the body of any report whenever in doubt as to the exact meaning of the text.

In conclusion, I beg to repeat the brief summary statement contained on pages 70 and 71 of the chief constructor's hearing before the Senate Naval Committee on Senate bill No. 3335, as follows:

To make a very brief summary of the salient points of this morning's hearing, I should like to state that the principal subjects of criticism, so far as they concern the Bureau of Construction and Repair, were the "height of freeboard," the "height of gun axes," and the "distribution of water-line belt armor."

I showed, I think, conclusively and made reference to reports and previous hearings that these three subjects have already been given the most serious consideration not only in our own but in foreign navies; that a very eminent board of admiralty, fortified by the unanimous opinion of some of the most distinguished officers of the British navy, had fully passed upon these subjects; that an equally conspicuous board in our own service, presided over by the late Admiral John G. Walker, had in 1896 given a most positive statement as to the essential characteristics of a battle ship, making specific comment concerning "freeboard," "gun heights," and location of water-line armor belt; that the general board of the Navy, as recently as 1903-4, had still further reenforced previous service opinion as to the freeboard requisite in a battle ship and had named the *Iowa* as a type which impressed favorably; the *Iowa*, be it noted, having less freeboard than any of the battle ships of the present Atlantic Fleet except the *Kearsarge* and *Kentucky*; also that the question of distribution of water-line armor had been given the most careful consideration in connection with each design of battle ship developed; that the designs of all United States battle ships were passed upon by the board on construction, the majority of whose members were seagoing officers; that at all times the Construction Bureau of the Navy Department has been in the closest touch with the seagoing element of the service; that the officers of the construction corps are selected from specially qualified officers of the line, are then given additional instruction in naval architecture, and ultimately transferred to the construction corps, full details as to the method of selection and subsequent training being given in the special reports heretofore alluded to; that all of the ships of the British navy and the Japanese navy, with the exception of the latest type, the *Dreadnought*, and possibly the *Majestics*, had approximately the same height of freeboard, height of gun axes, etc., as American vessels of approximately the same date; that the Japanese battle ships engaged in the battle of the Sea of Japan were designed and built in England and followed in their design the British school, having moderate freeboard; that the Japanese battle ships in the battle of the Sea of Japan appeared to have no difficulty whatever in fighting their batteries to great advantage in spite of the character of the weather, which was described by Mr. Reuter Dahl himself as being "nearly a gale."

There seems, therefore, no possible escape from the conclusion that the "freeboards," "heights of gun axes," "water-line distribution of armor," etc., of

battle ships of the United States Navy have been based upon the best possible judgment of representative officers of the seagoing branch of our own and foreign services, and that the battle ships of the United States Navy are in these respects fully equal to similar vessels in the British and Japanese navies.

The most recent information received from the commander in chief of the Atlantic Fleet, from the naval constructor attached to his staff, and from an officer who has recently returned from an inspection of certain foreign dockyards, fully convinces me of the accuracy of statements heretofore made in my reports and the testimony before the committees of Congress concerning the general excellence of battle ships of the United States Navy, not only as regards vessels in course of construction, but those in commission and attached to the Atlantic Fleet, due allowance being made, of course, for those developments in naval matériel subsequent to the completion of certain battle ships now in active service.

There are attached hereto, as requested by the committee, copies of the contracts for the *Delaware* and *Louisiana*, a copy of the report of the board of which Admiral J. G. Walker, U. S. Navy, was president, submitted to the Navy Department under date of May 18, 1896, and a copy of the report of the special turret board; also tabular statement giving lengths and widths of side armor on United States battle ships.

Very respectfully,

W. L. CAPPES,
Chief Constructor, U. S. Navy, Chief of Bureau.

HON. EUGENE HALE,
*Chairman Committee on Naval Affairs,
United States Senate.*
(Through Secretary of the Navy.)

[No. 144.]

**TO REMOVE THE CHARGE OF DESERTION FROM THE RECORD
OF SAMUEL B. DUMP, ALIAS SAMUEL BROWN—DEPARTMENT
LETTER.**

NAVY DEPARTMENT,
Washington, May 5, 1908.

SIR: Referring to your communication of the 30th ultimo, requesting to be furnished, for the use of the Committee on Naval Affairs, in the consideration of the bill (H. R. 20379) "to remove the charge of desertion from the record of Samuel B. Dump, alias Samuel Brown, and grant him an honorable discharge," with the views and recommendations of the Department touching the propriety of the legislation proposed, I have the honor to inform you that it appears from an examination of the records on file in the Bureau of Navigation, and in the office of the Auditor for the Navy Department, that Samuel B. Dump enlisted in the Navy at Cincinnati, Ohio, February 20, 1864, as a seaman, for one year; served on board the U. S. S. *Grampus*, *Clara Dolsen*, and *Avenger*, and deserted from the last-named vessel March 12, 1864.

The records on file in the Adjutant-General's Office, War Department, show that after Dump deserted from the naval service he was mustered into service May 6, 1864, as a private of Company B, One hundred and thirty-third Ohio National Guard Infantry, to serve one hundred days, and that he was mustered out and honorably discharged the service with the company August 20, 1864.

The case of Samuel B. Dump has, on several occasions, been considered by the Department with a view to the removal of the charge of desertion entered on the rolls of the *Avenger* against him, and each time decided adversely, owing to the fact that the case is not one in which relief can be granted under the provisions of the act of Congress "to relieve certain appointed or enlisted men of the Navy and Marine Corps from the charge of desertion," approved August 14, 1888, as amended May 24, 1900, because the entry against him being a proper one, the Department was without authority otherwise to remove the charge.

The Department sees no reason for special legislation in this case. The question whether or not such relief should be granted the applicant would appear to be a matter for the determination of the Congress.

In this connection the attention of the committee is invited to the fact that the discharge provided for is described in line 8 of the bill as an "honorable discharge." This term has, under existing law, a

special significance in the Navy, and such discharge entitles a man, when issued upon the expiration of an enlistment for four years as a testimonial of fidelity and obedience, to certain pecuniary benefits. It is suggested, therefore, if the committee should determine to report the bill favorably, that the term "discharge" instead of "honorable discharge" be used.

Very respectfully,

TRUMAN H. NEWBERRY,
Acting Secretary.

HON. GEORGE EDMUND FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives.*

[No. 145.]

**FOR THE RELIEF OF HUGH E. CARNEY, UNITED STATES NAVY.—
DEPARTMENT LETTER.**

NAVY DEPARTMENT,
Washington, May 6, 1908.

SIR: The Department has received, by your reference of the 2d instant, a bill (H. R. 19899) "for the relief of Hugh E. Carney, United States Navy."

The record in the case of Hugh E. Carney shows that he enlisted as a private in the United States Marine Corps January 3, 1903, and was discharged from the service in pursuance of the sentence of a summary court-martial, approved August 15, 1903, which found him guilty of the following offense:

In that the said Hugh E. Carney, a private in the United States Marine Corps, attached to and serving on board the United States flagship *Olympia*, at Bar Harbor, Maine, did, in conjunction with another, on the second day of August, nineteen hundred and three, unlawfully take, steal, and carry away from the bag of Henry D. Swain, private, United States Marine Corps, all the articles of clothing contained in said bag, the property of said Henry D. Swain, private, United States Marine Corps, attached to said vessel, and did then and there appropriate part of the same to his own use.

It was shown at the trial that Private Swain was absent from the *Olympia* on August 2, 1903; that his clothing bag was found empty; that Private Carney was sent for by a first sergeant of marines and interrogated regarding the matter and "admitted that he had part of Private Swain's clothing;" that upon examination of Carney's bag part of Swain's clothing was found therein; and that the accused, upon discovery, gave no reason for having said clothing in his possession.

This testimony was not rebutted by the accused, who stated that he "did not desire to call any witnesses." Neither did the accused take the stand in his own behalf; but he did submit a statement to the court, not under oath, and regarding which he was not cross-examined (such statement not being evidence in the case), as follows:

That he did not know there was any harm in his taking care of Private Swain's clothing. That he, the accused, enlisted with Private Swain and had been his chum ever since; that when Private Swain went ashore August 1, 1903, he gave his clothing to Private Meehan and him for safe-keeping until he returned.

The court sentenced the accused to—

solitary confinement in double irons, on bread and water for ten (10) days, with full ration every third day (3rd), and to lose ten (10) days' pay, amounting to four dollars and thirty-three cents (\$4.33).

The case was returned to the court by the convening officer for reconsideration, on the ground that this sentence was "inadequate and inappropriate for so demoralizing a misdemeanor as theft." The court

thereupon revoked its former sentence and sentenced the accused "to be discharged from the service with bad-conduct discharge," which was approved by the convening authority.

In submitting the record the court made a unanimous recommendation for clemency, "in view of the statement of the accused and of his previous good record." There was no evidence before the court of the previous record of the accused, but the following indorsement in the case was made by the Commandant of the Marine Corps:

In view of the serious nature of the offense of which Private Carney has just been convicted, and in consideration of his prior bad record, it is respectfully recommended that the sentence of the court in his case be carried out.

Should the uncorroborated statement of Carney, not under oath, be accepted as true (and it is questionable whether Swain would have divided his clothing with *two men* for "safe-keeping") his offense would still be a violation of Regulations (article 813), which require that the clothing of absentees shall be taken charge of by the master-at-arms.

It has been repeatedly held that marines may not dispose of their clothing, which is issued to them by the Government against a prescribed allowance, and as a corollary to this it is held that a person receiving marine clothing without authority commits an unlawful act.

In view of the organization of the military and naval service it may be doubted whether it would be advisable, in the interest of discipline, to set aside the sentence of a properly constituted court which has been approved by the convening authority and carried into effect by the Department after careful revision of the proceedings and findings. Nevertheless, should the Department feel, upon reconsideration of a case, that undue severity had been exercised in dealing with the accused, no objection would be made to the passage of a bill for his relief. However, the above facts, taken from the court-martial record, do not show any such severity in this case, and the Department is therefore unable to recommend favorable action upon the bill (H. R. 19899) directing that an honorable discharge be issued to Carney.

In this connection attention is invited to the fact that the bill in question provides that Carney's name be restored to the roll of the *Navy* and that he be honorably discharged from the *Navy*. Should favorable action be taken thereon it would seem that this should be changed so as to read "Marine Corps," and that a like change should be made in the title of the bill.

Very respectfully,

TRUMAN H. NEWBERRY,
Acting Secretary.

HON. GEORGE EDMUND FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives.*

[No. 146.]

**TO CREATE IN THE NAVY DEPARTMENT A ROLL TO BE KNOWN
AS THE NAVY AND MARINE CORPS CIVIL-WAR RETIRED LIST—
DEPARTMENT LETTER.**

NAVY DEPARTMENT,
Washington, May 9, 1908.

SIR: In response to your request of April 21, 1908, I have the honor to submit the following statement with respect to the bill (H. R. 12669) "to create in the Navy Department a roll to be known as the Navy and Marine Corps civil-war retired list, to authorize placing thereon, with retired pay, certain surviving officers of the United States Navy and the United States Marine Corps of the civil war, and for other purposes:"

1. It is not practicable to determine how many persons would be affected by the proposed legislation. By its terms the bill would apply not only to volunteer officers of the civil war, but to those who served in the regular Navy or Marine Corps and have since been honorably discharged or have resigned from the service. The language of page 1, lines 8 to 12, of the bill would seem to extend also to persons who served as enlisted men during the civil war and were later appointed officers.

2. Section 2 of the bill provides that each officer concerned shall be placed on the roll "as of the highest rank held by him while serving in said Navy or Marine Corps," and shall receive, according to age, one-half or three-fourths "of the highest pay of his rank." This provision would give some of the beneficiaries the rank of lieutenant-commander, the base pay of which is \$2,500 per annum.

3. Section 2 further provides that the persons concerned shall be "paid out of the navy pension fund which was created by the Navy of the civil war." The navy pension fund was created by an act of Congress approved March 2, 1799 (1 Stat., 716; sec. 4752, Rev. Stat.), which provided that "all the money accruing or which has already accrued from the sale of prizes shall be and remain forever a fund for the payment of the half pay to the officers and seamen who may be entitled to receive the same."

(a) By section 4755 of the Revised Statutes it is provided that navy pensions shall be paid from the navy pension fund upon appropriations authorized by Congress.

(b) By act of March 1, 1869, the appropriation therein contained and all future appropriations for the support of the United States Naval Home were made payable from the income of the navy pension fund. (15 Stat., 277.)

(c) As stated in my annual report for the fiscal year 1907 (p. 32), the interest upon the navy pension fund for that year amounted to \$420,000.

(d) The naval appropriation act of March 2, 1907, appropriated for the Naval Home \$73,683, to be "paid out of the income from the naval pension fund." The invalid pension act of March 4, 1907, appropriated for naval pensions \$4,800,000, to "be paid from the income of the navy pension fund, so far as the same shall be sufficient for that purpose."

(e) It will thus be seen that the income from the navy pension fund is altogether inadequate to meet the charges made against it by the laws above cited (paraphrases "a" and "b"), not to mention section 4757 of the Revised Statutes, which provides for relief to be extended to certain disabled persons who have served in the Navy or Marine Corps "from the surplus income of the naval pension fund." It follows from what has been said that the provisions of section 3 of the bill in question—"that each person who shall receive pay under this act shall thereby relinquish all his right and claim to pension from the United States"—would not in any way relieve the burden now placed by law upon this fund.

From the foregoing it appears that the statement contained on lines 14 and 15, page 2, of the bill—"which was created by the Navy of the civil war"—is inaccurate. Also, that if the bill should pass in its present shape there would be no funds available with which to pay the persons whom it is proposed to benefit.

Respecting the merits of this measure—as to the extent to which such aid should be given, either as to amount or as to persons—the Department considers that such questions should be left entirely to the determination of the Congress.

In this connection it is noted that the bill is so drawn as to require that the applicants must have served with credit between April 15, 1861, and July 15, 1865, but extends to any such persons who "have resigned" from the service. It is possible that under this provision cases might arise where the applicants had creditable civil-war service but were afterwards allowed to resign to avoid disciplinary proceedings or "for the good of the service."

Very respectfully,

TRUMAN H. NEWBERRY,
Acting Secretary.

Hon. GEORGE EDMUND FOSS,
*Chairman Committee on Naval Affairs,
House of Representatives.*

NAVAL APPROPRIATION BILL.

JANUARY 27, 1907.—Committed to the Committee of the Whole House on the state of the Union and ordered to be printed.

FEBRUARY 2, 1907.—Ordered reprinted as corrected.

Mr. Foss, from the Committee on Naval Affairs, submitted the following

REPORT.

[To accompany H. R. 24925.]

The Committee on Naval Affairs, to whom was referred so much of the President's annual message as relates to the naval establishment, together with the annual estimates of the Navy Department, submit herewith H. R. 24925, making appropriations for the naval service for the fiscal year ending June 30, 1908, with the following statement:

The amount carried by this bill is \$95,426,325.54.

The estimates of the Department amounted to \$115,431,440.47.

The committee, after careful consideration of these estimates, made deductions of the amount of \$20,005,114.93, leaving a balance of \$95,426,325.54, which sum is hereby recommended in this bill.

The following table gives a comparative statement of the appropriations for 1907 furnished by the Navy Department, the estimates for 1908, and the amounts recommended in this bill:

Naval Establishment.	Appropriated, 1907.	Estimates, 1908.	Recommended by this bill.
Pay of the Navy	\$20,269,637.00	\$23,643,117.00	\$21,000,000.90
Pay, miscellaneous	650,000.00	700,000.00	675,000.00
Contingent, Navy	65,000.00	65,000.00	65,000.00
Bureau of Navigation	1,895,395.00	2,290,304.50	1,999,804.50
Bureau of Ordnance	7,658,006.75	15,195,738.75	10,165,206.75
Bureau of Equipment	6,674,028.00	7,782,478.00	7,128,028.00
Bureau of Yards and Docks	1,023,308.83	1,197,168.25	1,144,424.84
Public works, Bureau of Yards and Docks	2,952,450.00	10,572,159.00	2,705,440.00
Public works, Secretary of the Navy:			
Naval Academy	750,000.00	880,000.00	880,000.00
Naval station, Island of Guam		20,000.00	20,000.00
Public works, Bureau of Navigation:			
Naval training station, California	69,750.00	51,000.00	39,000.00
Naval training station, Rhode Island	68,650.00	168,062.00	58,912.00
Naval War College	1,200.00		
Naval training station, Great Lakes	750,000.00	962,500.00	700,000.00
Public works, Bureau of Ordnance	283,500.00	950,430.00	369,780.00
Public works, Bureau of Equipment	10,000.00	10,000.00	10,000.00
Public works, Bureau of Medicine and Surgery	100,000.00	430,000.00	50,000.00
Bureau of Medicine and Surgery	405,000.00	430,900.00	455,900.00
Bureau of Supplies and Accounts	5,888,982.28	7,274,288.90	6,812,167.84
Do		80,000.00	
Bureau of Construction and Repair	8,082,824.25	8,112,824.25	8,102,824.25
Bureau of Steam Engineering	5,698,420.00	5,871,320.00	5,729,420.00
Naval Academy	389,060.58	432,188.36	428,188.36

*

Naval Establishment.	Appropriated, 1907.	Estimates, 1908.	Recommended by this bill.
Marine Corps:			
Public works, Marine Corps.....			\$377,000.00
Paymaster.....	\$2,779,276.48	\$3,268,986.46	3,101,692.00
Quartermaster.....	2,082,407.00	3,379,089.00	2,142,923.00
Increase of the Navy:			
Construction and machinery.....	17,830,829.00	12,713,915.00	12,713,915.00
Armor and armament.....	15,145,000.00	9,000,000.00	9,000,000.00
Equipment.....		500,000.00	500,000.00
Submarines.....	500,000.00		500,000.00
Total	102,167,670.27	115,431,449.47	95,426,325.54

The first paragraph of the bill relates to—

PAY OF THE NAVY.

Pay of the Navy.	Appropriated, 1907.	Estimates, 1908.	Recom- mended.
Pay of the Navy.....	\$20,269,637.00	\$23,643,117.00	\$21,000,000.00
Pay, miscellaneous.....	650,000.00	700,000.00	675,000.00
Contingent, Navy.....	65,000.00	65,000.00	65,000.00

The estimates submitted by the Department call for an appropriation of \$23,643,177, but inasmuch as we are now at the present time 4,500 short of our quota of 34,500 men, the committee came to the conclusion that the Department, judging from past experience, would not be able to enlist any more than enough to make up this shortage and an additional 1,500 men which are allowed in this bill. This will make the number of men authorized 36,000 men. To man the active fleet as it will stand when the vessels now authorized are built will require 37,283 men, the first reserve 3,309, and on shore stations 1,219, making a total of 41,814.

The appropriation for "Pay, miscellaneous," has been increased by \$25,000 over that of last year, while that for contingent of the Navy remains the same, \$65,000.

A provision inserted in the bill "for hire of quarters for officers serving with troops where there are no public quarters belonging to the Government, and where there are not sufficient quarters possessed by the United States to accommodate them, or commutation of quarters not to exceed the amount which an officer would receive were he not serving with troops," is recommended by the Secretary in the following letter:

NAVY DEPARTMENT,
Washington, December 22, 1906.

SIR: The Department is in receipt of a communication from the Bureau of Navigation, inviting attention to the fact that under a decision of the Comptroller of the Treasury (Comp. Dec., vol. 12, p. 291), rendered November 13, 1905, officers of the Navy serving on shore with troops are held not to be entitled to commutation of quarters.

The Bureau says:

"The effect of this decision is to work a special hardship on officers who are ordered on shore duty for service with enlisted men, as the deprivation of commutation of quarters, to which such an officer has hitherto without question been entitled, will result in a considerable pecuniary loss. The Department will itself be subjected to some embarrassment in issuing orders of this character, owing to their undesirability, and to correct what it considers an injustice to certain officers, the Bureau urgently recommends that Congress be requested to insert the following language in the estimate for 'Pay of the Navy,' after the words 'including boatswains, gunners, carpenters, sailmakers, warrant machinists, pharmacists, and mates, and also naval constructors and assistant naval constructors:'

"For hire of quarters for officers serving with troops where there are no public quarters belonging to the Government, and where there are not sufficient quarters possessed by the United States to accommodate them, or commutation of quarters not to exceed the amount which an officer would receive were he not serving with troops."

"No increase in the estimate need be made, as the effect of the new provision will only be to restore the conditions existing before the decision of the Comptroller, and permit the allotment to an officer serving on shore duty with troops of quarters to which his rank and duty entitle him."

Concurring in the views expressed by the Bureau in the foregoing letter, the Department commends this request to favorable consideration by the committee.

Very respectfully,

V. H. METCALF, *Secretary.*

Hon. GEORGE EDMUND FOSS,

Chairman Committee on Naval Affairs, House of Representatives.

The following provision is inserted relative to retired officers of the Navy above the grade of captain who served with credit during the civil war:

Provided, That officers of the Navy above the grade of captain who served with credit in the regular or volunteer forces during the civil war, prior to April ninth, eighteen hundred and sixty-five, otherwise than as cadets, and were retired prior to June thirtieth, eighteen hundred and ninety-nine, on account of wounds or disability incident to the service, or on account of age, or after forty years' service, shall receive the same pay and allowances from June twenty-ninth, nineteen hundred and six, as are or may be provided by or in pursuance of law for the retired officers of corresponding rank in the Army.

And provided further, That commodores coming under the provision of this section may, in the discretion of the President, by and with the advice and consent of the Senate, be placed on the retired list of the Navy, with the rank and retired pay of rear-admiral (junior grade), from June twenty-ninth, nineteen hundred and six.

A further provision is made relative to retired officers ordered to active duty, as follows:

That retired officers of the Navy who have retired for disabilities resulting from an incident of the service shall have for active duty the rank, pay, and allowances of officers of the active list of like length of active service, and if actively employed for an aggregate period of three years after retirement shall, when detached from duty, retain the rank and highest retired pay of the grade they then hold: *Provided*, That the time of service of the retired officer, for the purpose of fixing his rank, pay, and allowances, shall be made up of the period of service before retirement, to which shall be added the time engaged in active service, under the order of the Secretary of the Navy, while on the retired list: *Provided further*, That the present rank and pay of any officer on the retired list shall not hereby be reduced.

BUREAU OF NAVIGATION.

The following table is a comparative statement of the appropriations for 1907, estimates for 1908, and the amounts recommended in this bill:

Bureau of Navigation.	Appropriated, 1907.	Estimates, 1908.	Recom- mended.
Transportation	\$380,000.00	\$450,000.00	\$400,000.00
Recruiting	121,340.00	121,340.00	121,340.00
Contingent	15,000.00	25,000.00	15,000.00
Gunnery exercises	120,000.00	120,000.00	120,000.00
Outfits on first enlistment	567,000.00	720,000.00	600,000.00
Maintenance of naval auxiliaries	450,000.00	510,000.00	500,000.00
Naval training station, California	50,000.00	51,000.00	50,000.00
Naval training station, Newport	71,000.00	81,000.00	71,000.00
Naval training station, Port Royal .....	.....	50,000.00	.....
Naval training depot, St. Helena .....	.....	25,000.00	.....
Naval training station, Great Lakes	36,940.00	26,940.00	26,940.00
Naval War College	21,090.00	16,900.00	16,900.00
Naval Home, Philadelphia	77,216.00	78,124.50	78,124.50
Total	1,865,395.00	2,290,304.50	1,999,304.50

The appropriation for transportation has been increased by \$20,000. That of recruiting, contingent, and gunnery exercises remains the same as last year.

The appropriation for outfits on first enlistment is increased to \$600,000 by reason of the increased cost of materials which enter into the manufacture of the outfits.

The provision for the maintenance of naval colliers has been changed so as to read "maintenance of naval auxiliaries." This will include provision ships, ammunition ships, and a water ship, five vessels in all, which hereafter will be provided with civilian crews, which will be a saving to the Government.

The appropriations recommended for the naval training stations in California, Rhode Island, and the Great Lakes, and the Naval War College are the same as those of last year, and there is a slight increase in that for the Naval Home in Philadelphia, as will be seen from the above table.

BUREAU OF ORDNANCE.

The following table gives a comparative statement of the appropriations for 1907, estimates for 1908, and the amounts recommended in this bill:

Bureau of Ordnance.	Appropriated, 1907.	Estimates, 1908.	Recommended.
Ordnance and ordnance stores:			
Procuring, producing, preserving, and handling ordnance material.....	\$3,500,000.00	\$4,146,457.00	\$4,000,000.00
Modernizing batteries Massachusetts, Oregon, and new guns and armor for New York.....	466,000.00	750,000.00	750,000.00
Ammunition and other supplies for new ships.....	500,000.00	500,000.00	500,000.00
Smokeless powder, purchase and manufacture of.....	15,000.00	39,000.00	39,000.00
Machine tools for navy-yard, Boston.....		7,500.00	
Traveling crane, storehouse, navy-yard, League Island, Pa.....			
For Naval Gun Factory, Washington, D. C.:			
New and improved machinery for existing shops.....	150,000.00	150,000.00	150,000.00
Machinery, etc., for proposed new foundry.....		121,075.00	
Remodeling 110-ton crane in north gun shop.....		30,000.00	
Machinery for locomotive house.....		12,000.00	
Fourth fourth of boilers and installation of same.....	50,000.00		
Modernizing battery of Iowa.....		36,000.00	36,000.00
Modernizing batteries of Monterey and Monadnock.....		20,000.00	20,000.00
New turret sights for 4 monitors of Arkansas class.....		16,000.00	16,000.00
New battery for the Brooklyn.....		177,200.00	177,200.00
Modifying mounts and providing new sights.....		285,000.00	100,000.00
Fire-control instruments for battle ships, monitors, and cruisers.....		567,000.00	300,000.00
Reserve stock of mines and mine appliances.....		200,000.00	100,000.00
Relining guns, replacing breech plugs, locks, etc.....		155,000.00	
Torpedoes, modernizing destroyers, boats, etc.....		616,000.00	300,000.00
Wrecking outfits, replacing torpedoes, etc.....		766,000.00	
Reserve guns for auxiliary cruisers.....		500,000.00	
Reserve ammunition.....	^a 2,000,000.00	4,000,000.00	2,000,000.00
Reserve guns for ships of the Navy.....	750,000.00	1,396,500.00	750,000.00
Reserve torpedoes and appliances.....		500,000.00	250,000.00
Torpedo station, Newport, R. I.....	65,000.00	65,000.00	70,000.00
New smokestack, etc., for torpedo station.....		5,000.00	
Naval Militia.....	60,000.00	60,000.00	60,000.00
Repairs.....	30,000.00	50,000.00	30,000.00
Miscellaneous.....	25,000.00	20,000.00	20,000.00
Civil establishment.....	47,006.75	55,006.75	47,006.75
Total.....	7,658,006.75	15,195,738.75	9,715,206.75

^a This appropriation was under the head of "Reserve powder and shell."

The appropriation for ordnance and ordnance stores has been increased by \$500,000. This might be termed the working appropriation of the Bureau. A large part of this appropriation is for target

practice; probably a million and a half will be used for that purpose. Seven hundred and fifty thousand dollars is recommended for ammunition and other supplies for new ships. This appropriation has been formerly carried in another part of the bill under "Armor and armament," but upon the recommendation of the Bureau it is placed here under the Bureau of Ordnance.

The appropriation for smokeless powder is the same as that of last year, as is also that for new and improved machinery for ships at the Naval Gun Factory, Washington.

The committee recommend the modernizing of the batteries of the *Iowa*, *Monterey*, *Monadnock*, and new turret sites for four monitors, as well as a new battery for the *Brooklyn*. The committee also recommend an appropriation for \$300,000 for fire-control instruments for battle ships, cruisers, and monitors, and \$100,000 for the manufacture, purchase, repair, and maintenance of a reserve stock of mines and mine appliances, and \$300,000 for 18-inch torpedoes and for modernizing torpedo boats.

An appropriation of \$2,000,000, the same as that of last year, is recommended for the reserve supply of powder and shell, and an appropriation of \$750,000 for reserve guns, ships of the Navy, the same as that of last year.

An appropriation of \$250,000 is recommended for the purchase and manufacture of reserve torpedoes and appliances. The Chief of the Bureau is of the opinion that he can manufacture 21-inch torpedoes for \$3,500 each, which would be a saving of \$1,500 on each torpedo, and as we require a large number of them, the committee have thought it would be economy to allow him to make the trial. The other appropriations under this Bureau are practically the same as that of last year.

BUREAU OF EQUIPMENT.

The following table gives a comparative statement of the appropriations for 1907, estimates for 1908, and the amounts carried by this bill:

Bureau of Equipment.	Appropriated, 1907.	Estimates, 1908.	Recom- mended.
Equipment of vessels.....	\$3,000,000.00	\$3,500,000.00	\$3,250,000.00
Coal and transportation.....	3,750,000.00	3,750,000.00	3,750,000.00
Contingent, equipment.....	11,000.00	15,000.00	15,000.00
Ocean and lake surveys.....	75,000.00	75,000.00	75,000.00
Depots for coal.....		400,000.00	
Civil establishment, Bureau of Equipment.....	38,028.00	42,478.00	38,028.00
Total.....	6,874,028.00	7,782,478.00	7,128,028.00

The appropriations for the Bureau of Equipment are the same as those of last year, with the exception of the first item of \$3,250,000, which shows an increase of \$250,000 above that of last year. This is the working appropriation of the Bureau and is due to the increase in the number of ships of the Navy. A provision is inserted authorizing the Secretary of the Navy to inquire into cost of anchors, cables, chains, etc., with a view to determining the comparative cost and the relative merits between those manufactured by the Government and those by private concerns.

BUREAU OF YARDS AND DOCKS.

The following table gives a comparative statement of the appropriations for 1907, estimates for 1908, and the amounts carried in this bill:

Bureau of Yards and Docks.	Appropriated, 1907.	Estimates, 1908.	Recom- mended.
Maintenance, yards and docks.....	\$950,000.00	\$1,000,000.00	\$950,000.00
Contingent, Bureau of Yards and Docks.....	30,000.00	30,000.00	30,000.00
Civil establishment:			
Navy-yard, Portsmouth, N. H.....	13,738.00	15,150.00	13,750.00
1 electrician, increase from \$1,400 to \$1,600.....			
1 bookkeeper, at \$1,200 (new).....			
Navy-yard, Boston, Mass.....	12,026.61	12,261.17	12,061.17
1 electrician, increase from \$1,400 to \$1,600.....			
Navy-yard, New York, N. Y.....	23,139.62	23,306.89	23,196.99
1 electrician, increase from \$1,400 to \$1,600.....			
Naval station, Backetts Harbor, N. Y.....	365.00	366.00	365.00
Navy-yard, League Island, Pa.....	12,410.00	13,270.00	12,422.00
1 electrician, increase from \$1,400 to \$1,600.....			
1 messenger, civil engineer's office, at \$2 per diem (new).....			
Navy-yard, Washington, D. C.....	6,589.25	7,755.81	6,800.00
1 electrician, increase from \$1,400 to \$1,600.....			
1 stenographer and clerk, at \$3.04 per diem (new).....			
Navy-yard, Norfolk, Va.....	16,600.13	18,047.48	16,827.97
1 electrician, increase from \$1,400 to \$1,600.....			
1 pilot, increase from \$707.38 to \$900.....			
1 requisition and time clerk, civil engineer's office.....			
Navy-yard, Pensacola, Fla.....	7,498.32	7,827.04	7,527.04
1 clerk, increase from \$1,200 to \$1,300.....			
1 electrician, increase from \$1,400 to \$1,400.....			
Naval station, Port Royal, S. C.....	1,198.00	1,203.00	1,203.00
Naval station, Key West, Fla.....	2,642.40	2,644.16	2,644.16
Naval station, New Orleans, La.....	7,798.50	10,455.00	7,405.00
1 clerk, increase from \$1,200 to \$1,300.....			
1 electrician, \$1,600 (new).....			
1 writer and requisition clerk, \$950 (new).....			
Navy-yard, Mare Island, Cal.....	15,265.38	15,520.01	15,300.01
1 electrician, increase from \$1,400 to \$1,600.....			
Navy-yard, Puget Sound, Wash.....	11,455.52	12,632.44	11,479.80
1 clerk, increase from \$1,200 to \$1,400.....			
1 electrician, increase from \$1,200 to \$1,600.....			
1 messenger in office of captain of yard, at \$1.76 per diem (new).....			
Naval station, San Juan, P. R.....	3,680.00	3,680.00	3,680.00
Naval station, Hawaii.....	1,747.25	1,749.25	1,749.25
Naval station, Cavite, P. I.....	3,360.00	3,560.00	3,360.00
1 clerk, increase from \$1,200 to \$1,400.....			
Naval station, Guam.....	3,800.00	3,800.00	3,800.00
Navy-yard, Charleston, S. C.....		5,627.68	5,631.36
Commandant's office—			
1 stenographer and typewriter, at \$3.04 per diem, new.....			
1 writer and telegraph operator, at \$2 per diem, including Sundays, new.....			
1 mail messenger, at \$2 per diem, including Sundays, new.....			
1 messenger and janitor, at \$1.52 per diem, including Sundays, new.....			
Civil engineer's office—			
1 clerk, \$1,300, new.....			
1 stenographer, at \$2.80 per diem, new.....			
1 messenger, at \$1.52 per diem, new.....			
Naval station, Guantanamo, Cuba.....		1,812.32	
1 stenographer, at \$4 per diem, new.....			
1 messenger, commandant's office, at \$1.52 per diem, including Sundays, new.....			
Naval station, Olongapo, P. I.....		5,400.00	
1 clerk, at \$1,400 per annum, new.....			
2 writers, at \$480 each (\$960) new.....			
1 draftsman, at \$1,600, new.....			
1 foreman, at \$1,200, new.....			
2 messengers, at \$120 each (\$240) per annum, new.....			
Naval station, Tutuila.....		1,000.00	
1 clerk, at \$1,000 per annum, new.....			
Total.....	1,023,303.93	1,197,158.25	1,144,424.34

As will be seen from the above table, there is an increase of \$100,000 in the appropriation for maintenance of yards and docks. This year the Bureau is asking for a deficiency of \$50,000 over that of last year,

and although the estimates call for a million dollars yet the committee, after a careful consideration, recommended that \$950,000 be appropriated.

The committee recommend the following provision:

The Secretary of the Navy is hereby authorized to appoint a board of five persons, not more than two of whom shall be naval officers, which board shall investigate and report not later than December first, nineteen hundred and seven, as to all matters of construction, management, and administration of the navy-yards and stations, with a view to placing the same on a more economical basis, and to defray the compensation and expense of said board, the sum of fifteen thousand dollars, or so much thereof as may be necessary, is hereby appropriated.

PUBLIC WORKS, BUREAU OF YARDS AND DOCKS.

The following table gives a comparative statement of the appropriations for 1907, estimates for 1908, and the amounts carried in this bill:

Navy-yards and stations.	Appropriated, 1907.	Estimates, 1908.	Recom- mended.
Portsmouth, N. H.	\$250,000.00	\$1,137,900.00	\$186,700.00
Boston, Mass.	95,000.00	525,000.00	128,500.00
New York, N. Y.	128,500.00	538,000.00	217,000.00
League Island, Pa.	108,000.00	972,600.00	125,500.00
Washington, D. C.	63,200.00	506,619.00	86,000.00
Charleston, S. C.	471,500.00	960,300.00	239,000.00
Norfolk, Va.	409,500.00	1,288,200.00	235,500.00
Key West, Fla.	39,200.00	251,500.00	42,000.00
Mare Island, Cal.	143,000.00	480,500.00	147,500.00
Puget Sound, Wash.	205,000.00	686,500.00	256,500.00
Pensacola, Fla.	40,000.00	180,500.00	70,500.00
New Orleans, La.	215,500.00	326,300.00	168,300.00
Tutulla, Samoan Islands.		6,000.00	6,000.00
Olongapo, P. I.	207,000.00	690,000.00	115,000.00
Island of Guam.			
Cavite, P. I.	12,000.00	47,500.00	22,500.00
Culebra.		13,000.00	18,000.00
Newport, R. I.		2,000.00	2,000.00
San Juan, P. R.		51,000.00	
Guantanamo, Cuba.		704,800.00	
Steel floating dry dock.		250,000.00	100,000.00
Plans and specifications for public works.	30,000.00	45,000.00	30,000.00
Repairs and preservation at navy-yards.	500,000.00	550,000.00	500,000.00
Government landing, Newport, R. I.		7,840.00	7,840.00
Hawaii.	35,000.00	8,100.00	8,100.00
Total.	2,952,450.00	10,572,159.00	2,705,440.00

As will be seen from the above table, the estimates amount to \$10,572,159; but after careful consideration of these estimates and hearings thereon, the committee recommended this year a total of \$2,705,440.

The committee recommend the following provision:

The Secretary of the Navy is authorized to make a thorough investigation regarding the cost of articles or material manufactured by the Government in navy-yards and naval stations, and the cost of like articles and material purchased in the open markets, and to report to the next Congress the information obtained and the difference found in such cost, and such other information as he may deem advisable.

PUBLIC WORKS UNDER THE SECRETARY OF THE NAVY.

The committee recommended an appropriation of \$380,000 to complete the construction of buildings and other necessary improvements at the Naval Academy, which appropriation completes the \$10,000,000 fixed by Congress for the reconstruction of this institution.

An appropriation of \$20,000 is also recommended for lepers on the

island of Guam in accordance with the recommendation of the Secretary of the Navy in his report.

LEPER COLONY AT GUAM.

I respectfully call your attention and that of the Congress to the imperative demand of humanity, as well as public policy, that a reasonable appropriation be made to assist the government of the island of Guam in dealing with the cases of leprosy and of a peculiar and terrible tropical disease, the precise nature of which seems to be as yet undetermined, existing upon that island. The resources at the command of the governments of Guam and Tutuila are very limited, owing to the poverty of the inhabitants, and the public expenses of both arise, in large part, from their constituting naval stations. It is, therefore, plainly equitable that the General Government should assist these poor and isolated communities in bearing the burdens thus imposed upon them; but, in matters affecting their sanitary condition, self-interest, as well as equity, dictates a generous course in this respect, since the health of the force maintained at these stations may well suffer with that of the inhabitants. I strongly recommend, therefore, that a moderate sum, say \$50,000, be appropriated annually, to be expended in the discretion of the Secretary of the Navy, for the advancement of the welfare of the inhabitants of these islands, a detailed statement of all such items of expenditure to be, of course, laid before the Congress at the commencement of each session.

PUBLIC WORKS, BUREAUS OF NAVIGATION, ORDNANCE, EQUIPMENT, MEDICINE AND SURGERY.

The following table gives a comparative statement of the appropriations for 1907, estimates for 1908, and the amounts recommended in this bill for public works under the Bureaus of Navigation, Ordnance, Equipment, and Medicine and Surgery:

	Appropriated, 1907.	Estimates, 1908.	Recom- mended.
Public works, Bureau of Navigation:			
Naval training station, California.....	\$69,750.00	\$51,000.00	\$39,000.00
Naval training station, Rhode Island.....	68,650.00	168,052.00	58,912.00
Naval War College.....	1,200.00		
Naval training station, Great Lakes.....	750,000.00	962,500.00	700,000.00
Total.....	889,600.00	1,181,552.00	797,912.00
Public works, Bureau of Ordnance:			
Naval magazine, Dover, N. J.....	5,100.00	46,000.00	22,000.00
Naval magazine, St. Juliens Creek.....	25,000.00	33,750.00	14,000.00
Naval proving ground, Indian Head, Md.....	19,700.00	58,130.00	34,130.00
Naval magazine, Fort Mifflin, Pa.....	6,000.00	27,100.00	8,200.00
Naval magazine, New England coast.....	200,000.00	230,000.00	130,000.00
Naval magazine, Mare Island, Cal.....	11,300.00	100,000.00	50,000.00
Torpedo station, Newport, R. I.....	9,400.00	167,500.00	12,500.00
Naval magazine, New York Harbor.....		69,950.00	23,950.00
Naval magazine, Puget Sound.....		153,000.00	75,000.00
Naval magazine, Philippine Islands.....	40,000.00		
Naval magazine, Guantanamo, Cuba.....	52,500.00		
Naval magazine, Pensacola, Fla.....	5,000.00		
Total.....	293,500.00	950,430.00	369,780.00
Public works, Bureau of Equipment:			
Naval Observatory—			
Grounds and roads.....	10,000.00	10,000.00	10,000.00
Public works, Bureau of Medicine and Surgery:			
Naval hospital, Norfolk, Va.—			
For renovation of present hospital buildings			
and erection of new wards (cost not to ex-			
ceed \$200,000).....	100,000.00	100,000.00	
Naval hospital, Pensacola, Fla.—			
For renewal of present hospital buildings and			
for erection of quarters for medical staff.....		25,000.00	25,000.00
Naval hospital, Puget Sound, Wash.—			
For erection of hospital buildings (cost not to			
exceed \$150,000).....		75,000.00	
Naval hospital, Great Lakes—			
For erection of hospital buildings (cost not to			
exceed \$150,000).....		75,000.00	

	Appropriated, 1907.	Estimates, 1908.	Recom- mended.
Public works, Bureau of Medicine and Surgery—Con.			
Naval hospital, Washington, D. C.—			
For erection of an additional hospital pavilion.....		\$60,000.00	.....
Naval hospital, Canacao, P. I.—			
For construction of additional hospital wards and for erection of two quarters for medical staff.....		70,000.00	.....
Naval medical supply depot, Canacao, P. I.—			
For erection of building.....		25,000.00	\$25,000.00
Total.....	\$100,000.00	430,000.00	50,000.00
Public works—Marine Corps:			
Addition to officers' quarters, Portsmouth, N. H. .		12,000.00	.....
Parade ground, Boston, Mass.....		5,000.00	.....
Marine barracks and officers' quarters, New Lon- don, Conn.....		100,000.00	.....
Marine barracks and officers' quarters, League Island, Pa.....		125,000.00	30,000.00
Amusement room, League Island, Pa.....		15,000.00	.....
Purchase of ground and addition to depot, Phila- delphia, Pa.....		200,000.00	200,000.00
Toward completion of barracks and officers' quarters, Washington, D. C.....		50,000.00	80,000.00
Roads, walks, grading, etc., Norfolk, Va.....		10,000.00	5,000.00
Marine barracks and officers' quarters, Charles- ton, S. C.....		50,000.00	30,000.00
Officers' quarters, Pensacola, Fla.....		15,000.00	10,000.00
Temporary marine barracks, Guantanamo, Cuba.....		25,000.00	10,000.00
Addition to marine barracks, Bremerton, Wash.....		12,000.00	12,000.00
Toward completion of officers' quarters, Bremer- ton, Wash.....		10,000.00	.....
Marine barracks and officers' quarters, Mare Island, Cal.....		180,000.00	.....
Temporary marine barracks and officers' quar- ters, Cavite, P. I.....		75,000.00	.....
Laundries, Marine Corps.....	12,000.00		.....
Completion of marine barracks and officers' quarters, Norfolk, Va.....	39,000.00		.....
Marine barracks and officers' quarters, New Or- leans, La.....	15,000.00		.....
Marine barracks and officers' quarters, San Fran- cisco, Cal.....	15,000.00		.....
Repairs and improvements, New London, Conn.....	25,000.00		.....
Purchase of land, Sitka, Alaska.....	400.00		.....
Total.....	106,400.00	884,000.00	877,000.00

PUBLIC WORKS, BUREAU OF NAVIGATION.

The committee recommend improvements to the amount of \$39,000 for the naval training station in California, \$59,000 for improvements at the naval training station in Rhode Island, and \$700,000 for the naval training station on the Great Lakes.

Congress at the session last year provided that the contemplated new buildings at the naval training station, Great Lakes, should involve the total expenditure of not more than \$2,000,000, \$750,000 of which has already been appropriated. At the time of the authorization of the establishment of the station \$250,000 was appropriated therefor, which is now being used for dredging an inner basin, building a sea wall, fencing, filling ravines, making sidewalks, etc.

PUBLIC WORKS, BUREAU OF ORDNANCE.

The committee recommend the construction of two magazines at Dover, N. J., to cost \$22,000, and one magazine at St. Juliens Creek, Norfolk, to cost \$14,000. Also a shell and mount storehouse at Indian Head, to cost \$20,500, and other improvements. One hundred and thirty thousand dollars is appropriated for the New England magazine, which was authorized by Congress two years ago. An additional

magazine and equipment is provided for the navy-yard at Mare Island, Cal., and improvements to the naval magazine in New York Harbor, and a new magazine for the navy-yard, Puget Sound.

PUBLIC WORKS, BUREAU OF EQUIPMENT.

An appropriation of \$10,000 is recommended, the same as last year, for the Naval Observatory.

PUBLIC WORKS, BUREAU OF MEDICINE AND SURGERY.

The committee recommends the renewal of the hospital at Pensacola, and the erection of quarters for the medical staff, to cost \$25,000, and also a naval medical supply depot at Canacao, P. I., to cost \$25,000.

PUBLIC WORKS, MARINE CORPS.

As will be seen from the above, the committee recommends appropriations to the amount of \$377,000 for public works, Marine Corps, \$200,000 of which is for the purchase of ground and the erection thereon of an addition to the quartermaster's depot at Philadelphia, which is urgently requested, and \$80,000 for the completion of the marine barracks and officers' quarters in the District of Columbia, and \$30,000 for officers' quarters at League Island, and \$30,000 for the construction of marine barracks at Charleston, and other improvements at other stations.

BUREAU OF MEDICINE AND SURGERY.

The following table gives a comparative statement of the appropriations for 1907, estimates for 1908, and the amounts carried in this bill:

Bureau of Medicine and Surgery.	Appropriations, 1907.	Estimates, 1908.	Recommended.
Medical Department.....	\$255,000.00	\$270,000.00	\$255,000.00
Naval-hospital fund.....	40,000.00	40,000.00	40,000.00
Contingent, Medicine and Surgery.....	55,000.00	60,000.00	55,000.00
Transportation of remains.....	10,000.00	10,000.00	10,000.00
Repairs, Medicine and Surgery.....	45,000.00	50,000.00	45,000.00
Hospital equipment, Guantanamo.....		900.00	900.00
Dental surgeons.....			50,000.00
Total.....	405,000.00	430,900.00	455,900.00

The appropriations, as will be seen from the above table, are practically the same as last year, with the exception of \$50,000 which is appropriated for the establishment of a corps of dental surgeons as follows:

That the President be, and he is hereby, authorized to appoint dental surgeons to serve the officers and enlisted men of the Navy and Marine Corps, not to exceed thirty in all. Said dental surgeons shall have the rank and compensation of acting assistant surgeons in the Navy; shall be graduates of standard dental colleges, trained in the several branches of dentistry; of good moral character and professional standing, and shall pass a physical and professional examination; and their appointment shall be for a term of years and revocable at the pleasure of the President, and the sum of fifty thousand dollars is hereby appropriated for such purpose.

The committee also recommends a reorganization of the Hospital Corps of the Navy, which is urgently requested by the Bureau of Medicine and Surgery, and is as follows:

That the Hospital Corps of the United States Navy shall consist of chief pharmacists; pharmacists; chief pharmacists' mates; pharmacists' mates, first class; pharmacists' mates, second class, and hospital apprentices.

SEC. 2. That the number of chief pharmacists and pharmacists on the active list shall not exceed fifty in all, the pharmacists to be appointed by the President and have the status of warrant officers, with the rank, pay, and allowances and privileges of such; that vacancies in the grade of pharmacist shall be filled from men holding the rating of chief pharmacists' mate, subject to such examination as the Secretary of the Navy may prescribe; that pharmacists shall, after six years from date of warrant, be commissioned chief pharmacist, to rank with but after ensign, and shall, on promotion, have the same pay and allowances as are now allowed chief boatswain, chief gunners, chief carpenters, and chief sailmakers: *Provided*, That no pharmacist shall be so promoted until he shall have passed an examination as to his mental, moral, professional, and physical qualifications before a board of officers, in accordance with regulations prescribed by the Secretary of the Navy.

SEC. 3. That the Secretary of the Navy is hereby empowered to enlist, or cause to be enlisted, as many chief pharmacists' mates; pharmacists' mates, first class; pharmacists' mates, second class, and hospital apprentices as in his judgment may be necessary, and to fix the number and to make such regulations as may be required for their enlistment and government. Enlisted men of the Navy and Marine Corps shall be eligible for transfer to the Hospital Corps.

SEC. 4. That all necessary hospital and ambulance service at naval hospitals, naval stations, navy-yards, and marine barracks, and on vessels of the Navy and Fish Commission shall be performed by members of the Hospital Corps, and the said corps shall be permanently attached to the Medical Corps of the Navy and shall be included in the effective strength of the Navy, and shall be counted part of the enlisted force provided by law, and be subject to the laws and regulations for the government of the Navy.

SEC. 5. That the pay of chief pharmacists' mates shall be seventy dollars per month, except when serving under acting appointments, when it shall be sixty dollars per month; of pharmacists' mates, first class, fifty dollars per month; of pharmacists' mates, second class, thirty-five dollars per month; and of hospital apprentices, twenty dollars per month, with such increase on account of length of service as is now or may hereafter be allowed by or in pursuance of law to other enlisted men of the Navy; and that all benefits that are now or may hereafter be given by or in pursuance of law to other warrant officers or enlisted men of the Navy shall hereafter be allowed to warrant officers and enlisted men of the Hospital Corps.

SEC. 6. That all acts or parts of acts so far as they conflict with the provisions of this act are hereby repealed.

BUREAU OF SUPPLIES AND ACCOUNTS.

The following table gives a comparative statement of the appropriations for 1907, estimates for 1908, and the amounts carried in this bill:

Bureau of Supplies and Accounts.	Appropriated, 1907.	Estimates, 1908.	Recom- mended.
Provisions, Navy, 1908.....	\$5,220,000.00	\$5,490,000.00	\$5,542,000.00
Contingent, Bureau of Supplies and Accounts, 1908....	180,000.00	175,000.00	165,000.00
Freight, Bureau of Supplies and Accounts, 1908.....	400,000.00	500,000.00	500,000.00
Civil establishment, Bureau of Supplies and Ac- counts, 1908.....	108,982.28	109,288.90	105,167.34
1 clerk at naval training station, Great Lakes, at \$1,000.....			
1 stenographer at naval station, Guantanamo, Cuba, at \$4 per diem.....			
1 store man at naval station, Guantanamo, Cuba, at \$8.04 per diem.....			
1 receiving and shipping clerk at naval station, Cavite, P. I., at \$1,400, in lieu of one at \$1,200.....			
1 lumber inspector at naval station, Cavite, P. I., at \$1,000.....			
1 expert packer at naval station, Cavite, P. I., at \$900.....			
Increase in estimates for per diem salaries on ac- count 1908 being a leap year.....			
Total.....	5,883,982.28	7,274,288.90	6,812,167.34
Provisions, Navy, 1908 (special): 75,000 United States Army emergency rations.....		30,000.00	

As will be seen from the above table, the appropriation for provisions shows an increase of \$300,000. This is due to two things: First, to the increased cost of rations; second, to the increase in the num-

ber of men, and third, to the authorization of \$100,000 United States Army emergency rations. The item for freight is also increased by \$100,000. There is likely to be a deficiency this year of a considerable amount, and the freight charges are increased, necessarily, with the enlargement of the naval establishment.

The committee recommend the following provision:

Hereafter the purchase of supplies and the procurement of services for all branches of the naval service may be made in open market in the manner common among business men, without formal contract or bond, when the aggregate of the amount required does not exceed five hundred dollars, and when, in the opinion of the proper administrative officers, equally or more advantageous terms can thereby be secured.

BUREAU OF CONSTRUCTION AND REPAIR.

The following table gives a comparative statement of the appropriations for 1907, estimates for 1908, and the amounts carried in this bill:

Bureau of Construction and Repair.	Appropriated, 1907.	Estimates, 1908.	Recom- mended.
Bureau of Construction and Repair.....	\$7,900,000.00	\$7,900,000.00	\$7,900,000.00
Improvement of construction plants:			
Navy-yard, Portsmouth, N. H.....	15,000.00	15,000.00	15,000.00
Navy-yard, Boston, Mass.....	20,000.00	20,000.00	20,000.00
Navy-yard, New York, N. Y.....	20,000.00	20,000.00	20,000.00
Navy-yard, League Island, Pa.....	15,000.00	15,000.00	15,000.00
Navy-yard, Norfolk, Va.....	12,000.00	12,000.00	12,000.00
Navy-yard, Pensacola, Fla.....	15,000.00	15,000.00	15,000.00
Navy-yard, Mare Island, Cal.....	15,000.00	15,000.00	10,000.00
Navy-yard, Puget Sound, Wash.....	20,000.00	20,000.00	15,000.00
Naval station, Charleston, S. C.....	30,000.00	30,000.00	20,000.00
Naval station, New Orleans, La.....	10,000.00	10,000.00	20,000.00
Civil establishment.....	40,824.25	40,824.25	40,824.25
Total.....	8,082,824.25	8,112,824.25	8,102,824.25

The appropriations for this Bureau are substantially the same as last year. A provision has, however, been inserted limiting the cost of repairs on the steel ships of the Navy to 20 per cent. It is believed that this provision will have a tendency toward greater economy.

BUREAU OF STEAM ENGINEERING.

The following table gives a comparative statement of the appropriations for 1907, estimates for 1908, and the amounts carried in this bill:

Bureau of Steam Engineering.	Appropriated, 1907.	Estimates, 1908.	Recom- mended.
Steam machinery—			
For completion, repairing, and preservation of machinery, boilers, etc.....	\$3,500,000.00	\$3,500,000.00	\$3,500,000.00
For purchase, handling, and preservation of material, stores, etc.....	2,000,000.00	2,000,000.00	2,000,000.00
For incidental expenses for naval vessels and yards.....	5,000.00	5,000.00	6,000.00
Improvement of steam engineering plant:			
Portsmouth, N. H., Navy-Yard.....	110,000.00	50,000.00	30,000.00
Boston, Mass., Navy-Yard.....		35,000.00	
New York, N. Y., Navy-Yard.....		40,000.00	40,000.00
League Island, Pa., Navy-Yard.....		25,000.00	25,000.00
Norfolk, Va., Navy-Yard.....	25,000.00	40,000.00	25,000.00
Pensacola, Fla., Navy-Yard.....	10,000.00	15,000.00	10,000.00
Guantanamo, Cuba, Naval Station.....		10,000.00	
Cavite, P. I., Naval Station.....		25,000.00	25,000.00
Olongapo, P. I., Naval Station.....		20,000.00	20,000.00
Engineering experimental station, United States Naval Academy, Annapolis, Md.:			
Salaries.....	5,520.00	8,520.00	5,520.00
For civilian assistant to director.....			
Contingent.....		1,000.00	

Bureau of Steam Engineering.	Appropriated, 1907.	Estimates, 1908.	Recom- mended.
Engineering experimental station, etc.—Continued, Experimental work at engineering laboratory....	\$25,000.00	\$25,000.00	\$25,000.00
Buildings (including furniture, etc.).....		50,000.00	
1 house for quarters for engineering director (officer).....			
1 house for quarters for assistant to director (officer).....			
1 house for quarters for assistant to director (civilian).....			
Civil establishment:			
At all navy-yards and stations.....	17,900.00	21,800.00	17,900.00
1 clerk to department, Cavite Naval Station ..			
1 clerk, Cavite Naval Station.....			
1 clerk, Cavite Naval Station.....			
Total.....	5,698,420.00	5,871,820.00	5,729,420.00

As will be seen the amount appropriated for this Bureau is practically the same as last year, there being only an increase of about \$30,000.

NAVAL ACADEMY, CIVIL ESTABLISHMENT.

The following table gives a comparative statement of the appropriations for 1907, estimates for 1908, and the amounts carried in this bill:

Naval Academy.	Appropriated, 1907.	Estimates, 1908.	Recom- mended.
Pay of professors and others.....	\$126,217.52	\$120,868.26	\$120,868.26
3 professors, 1 English, 1 French, and 1 Spanish (1 professor of drawing, at \$2,200 per annum omitted)			
2 additional instructors (new).....			
1 cataloguer, at \$1,100 (in lieu of 1 assistant librarian, at \$1,000).....			
1 shelf assistant (new).....			
1 shelf assistant (new).....			
1 mechanic in department of ordnance (new).....			
1 quarter gunner (increase of 18 cents per year to equalize pay with other quarter gunners).....			
2 quarter gunners (new).....			
2 additional attendants (new).....			
1 printer, at \$720 (new).....			
1 printer, at \$480 (new).....			
1 bandsman, at \$1,200 (omitted and estimated for under pay of the Navy).....			
21 musicians, at \$420 each (omitted and estimated for under pay of the Navy).....			
7 second-class musicians, at \$360 each (omitted and estimated for under pay of the Navy).....			
Pay of watchmen, mechanics, and others.....	75,000.00	100,000.00	100,000.00
To reimburse appropriation "Pay of watchmen, etc.," for expense incurred by reason of necessity for re- taining watchmen during vacation period.....		4,000.00	
Pay of steam employees, Naval Academy.....	20,343.06	20,343.06	20,343.06
Special course, Naval Academy.....	3,000.00	3,000.00	3,000.00
Repairs, Naval Academy.....	20,000.00	30,000.00	30,000.00
Heating and lighting, Naval Academy.....	40,000.00	50,000.00	50,000.00
Contingent, Naval Academy:			
Purchase, binding, and repairs of books.....	2,500.00	2,500.00	
Purchase of Azimuth Tables (new).....		700.00	
Stationery, blank books, models, and maps.....	2,500.00	2,500.00	
Expenses of Board of Visitors.....	2,000.00	2,000.00	
Purchase of chemicals.....	3,000.00	3,000.00	
Purchase of gas and steam machinery.....	60,000.00	60,000.00	
Stores in department of steam engineering (omitted).....	1,000.00		
Material for repairs in steam machinery (omitted). Stores, etc., in department of marine engineering..	1,500.00	15,000.00	108,977.04
Apparatus for instruction of midshipmen in the various academic departments.....		15,000.00	
Apparatus for instruction of midshipmen in de- partment of marine engineering and naval con- struction (divided into last-named above two items of \$15,000 each).....	30,000.00		
For contingencies for the Superintendent.....	2,000.00	2,000.00	
Care of rifle range.....		1,277.04	
Total.....	399,060.56	432,186.36	428,186.36

The increase in the above table in the amount of appropriations is due entirely to the enlargement of the academy and the increase in the number of midshipmen.

A provision has been inserted reorganizing the academy band and placing it upon the same basis as the band at West Point.

MARINE CORPS.

The Marine Corps is the military branch of the naval service and consists to-day of 278 officers and 8,771 men.

The following table shows the appropriations for 1907, estimates for 1908, and the amounts carried in this bill:

Marine Corps.	Appropriated, 1907.	Estimates, 1908.	Recom- mended.
Pay of the U. S. Marine Corps—			
Pay, officers, active list	\$578,180.00	\$598,140.00	\$3,101,892.46
Pay, officers, retired list	115,000.00	115,000.00	
Pay, noncommissioned officers, musicians, privates, active	1,888,555.20	1,888,555.20	
Pay, enlisted men, retired	50,000.00	67,422.00	
Undrawn clothing	77,899.00	98,889.98	
Mileage	30,000.00	40,000.00	
Commutation of quarters, officers	15,000.00	20,000.00	
Pay, civil force—			
Office of the brigadier-general, commandant	3,771.28	3,871.28	
Office of the paymaster	4,300.00	4,400.00	
Office of the assistant paymaster, Washington, D. C. (new)		1,300.00	\$3,101,892.46
Office of the assistant paymaster, San Francisco, Cal	1,400.00	1,400.00	
Office of the adjutant and inspector	3,100.00	3,200.00	
Office of the assistant adjutant and inspector	1,200.00	1,200.00	
Office of the quartermaster	7,100.00	7,200.00	
Office of the assistant quartermaster, Washington or San Francisco	2,800.00	2,800.00	
Pay department, Philippines	1,400.00	1,400.00	
Quartermaster's department, Philippines	1,400.00	1,400.00	
Assistant quartermaster, Philadelphia, Pa.	2,440.00	2,440.00	
Interest on deposits of enlisted men	3,000.00	4,000.00	
Increase in officers		76,000.00	
Increase in enlisted men		340,000.00	
Total	2,779,276.48	3,268,986.46	
Quartermaster:			
Provisions, Marine Corps	548,500.00	578,500.00	2,142,923.00
Clothing, Marine Corps	575,920.00	735,920.00	
Fuel, Marine Corps	70,000.00	90,000.00	
Military stores, Marine Corps	200,000.00	275,782.00	
Transportation and recruiting, Marine Corps	158,000.00	228,000.00	
Repairs of barracks, Marine Corps	68,338.00	78,338.00	
Forage, Marine Corps	17,700.00	17,700.00	
Hire of quarters, Marine Corps	35,748.00	51,548.00	
Contingent, Marine Corps	255,800.00	330,800.00	
Total	2,082,407.00	3,379,088.00	

The committee recommends the following additional officers:

One major-general, commandant, with the pay and allowances of officers of like grade in the Army, and the rank of brigadier-general in the Marine Corps is hereby discontinued.

One major, assistant adjutant and inspector.

One major, assistant quartermaster.

Two captains, assistant quartermasters.

One major, assistant paymaster.

Two captains, assistant paymasters.

Three majors, 10 captains, 15 first lieutenants.

Also 1 sergeant-major, 12 quartermaster-sergeants, 19 gunnery sergeants, 47 sergeants, 85 corporals, 12 drummers, 12 trumpeters, and 800 privates.

INCREASE OF THE NAVY.

The following table shows the amounts appropriated for 1907, estimates for 1908, and the amounts carried in this bill:

Increase of the Navy.	Appropriated, 1907.	Estimates, 1908.	Recom- mended.
Construction and machinery.....	\$17,880,829.00	\$12,713,915.00	\$12,713,915.00
Armor and armament.....	15,145,000.00	9,000,000.00	9,000,000.00
Equipment.....	.....	500,000.00	500,000.00
Submarines.....	500,000.00	.....	500,000.00
Total.....	33,475,829.00	22,213,915.00	22,713,915.00

The following table shows the degree of completion of our ships now under construction:

**BUREAU OF CONSTRUCTION AND REPAIR,
NAVY DEPARTMENT,
January 10, 1907.**

Vessels under construction, United States Navy.

BATTLE SHIPS.

No.	Name of vessel.	Speed.	Building at—	Per cent of completion.	
				Dec. 1, 1906.	Jan. 1, 1907.
		<i>Knots.</i>			
14	Nebraska.....	19	Moran Brothers Co.....	97.50	98.10
18	Connecticut.....	18	Navy-yard, New York.....	99.72	99.72
20	Vermont.....	18	Fore River Shipbuilding Co.....	96	97.5
21	Kansas.....	18	New York Shipbuilding Co.....	95.2	96.9
22	Minnesota.....	18	Newport News Shipbuilding Co.....	98	98.5
23	Mississippi.....	17	Wm. Cramp & Sons.....	69.60	70.68
24	Idaho.....	17	do.....	65.16	66.78
25	New Hampshire.....	18	New York Shipbuilding Co.....	57	60.8
26	South Carolina.....	.....	Wm. Cramp & Sons.....	3.14	5.08
27	Michigan.....	.....	New York Shipbuilding Co.....	1.61	3.01

ARMORED CRUISERS.

6	California.....	22	Union Iron Works.....	97	97.4
9	South Dakota.....	22	do.....	93.8	94.8
12	North Carolina.....	22	Newport News Shipbuilding Co.....	66.35	69.16
13	Montana.....	22	do.....	60.62	63.59

PROTECTED CRUISERS.

21	Milwaukee.....	22	Union Iron Works.....	99.9	99.96
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TRAINING SHIPS.

....	Cumberland.....	Sails	Navy-yard, Boston.....	99.9	99.9
....	Intrepid.....	Sails	Navy-yard, Mare Island.....	100

SCOUT CRUISERS.

....	Chester.....	.....	Bath Iron Works.....	54.88	59.42
....	Birmingham.....	.....	Fore River Shipbuilding Co.....	53.7	55.6
....	Salem.....	.....	do.....	54	56.5

Vessels under construction, United States Navy—Continued.

SUBMARINE TORPEDO BOATS.

No.	Name of vessel.	Speed.	Building at—	Per cent of completion.	
				Dec. 1, 1905.	Jan. 1, 1907.
		<i>Knots.</i>			
.....	Submarine torpedo boat No. 9.	.....	Fore River Shipbuilding Co.....	90	90
.....	Submarine torpedo boat No. 10.	.....	do	82.72	82.7
.....	Submarine torpedo boat No. 11.	.....	do	92	92
.....	Submarine torpedo boat No. 12.	.....	do	81.1	81.1

The amount necessary to be appropriated in order to complete all the ships except submarines authorized up to the present time is as follows:

Construction and machinery	\$22,981,219.00
Armor and armament.....	11,423,821.54
Equipment	950,000.00

Total	35,355,040.54
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Of this amount the committee recommend in this bill \$22,963,915, which leaves a balance of \$12,391,125.54 remaining to be appropriated hereafter for the completion of ships.

PREVIOUS NAVAL PROGRAMMES.

List, by years and sessions of Congress, of naval vessels authorized by acts of Congress from 1883 to 1905, inclusive.

[Pulsaifer's compilation.]

1883 (47TH, 2D).

Name.	Type.	Displacement.	Speed.	Mean draft.
		<i>Tons.</i>	<i>Knots.</i>	<i>Ft. in.</i>
Atlanta.....	Protected cruiser.....	3,000	15.60	16 10
Boston.....	do	3,035	15.60	17 0
Chicago.....	do	5,000	18	20 4½
Dolphin.....	Dispatch boat.....	1,486	15.50	14 3
Total.....		12,521		

1885 (48TH, 2D).

Charleston (destroyed).....	Protected cruiser.....	3,370	18.2	18 7
Newark.....	do	4,098	19	18 9
Petrel.....	Gunboat.....	892	11.79	11 7
Yorktown.....	do	1,710	16.14	14 0
Total.....		10,070		

1896 (49TH, 1ST).

Amphitrite.....	Monitor.....	3,990	10.5	14 6
Baltimore.....	Protected cruiser.....	4,413	20.096	20 0
Cushing.....	Torpedo boat.....	105	22.5	4 10½
Maine (destroyed).....	Second-class battle ship.....	6,682	17.45	21 6
Monadnock.....	Monitor.....	4,005	12	14 7
Puritan.....	do	6,060	12.4	18 0
Terror.....	do	3,990	10.5	14 6
Texas.....	Second-class battle ship.....	6,315	17.8	22 6
Vesuvius.....	Dynamite-gun cruiser.....	929	21.42	10 7½
Total.....		36,489		

* Built in Government yard.

List, by years and sessions of Congress, of naval vessels authorized by acts of Congress from 1883 to 1905, inclusive—Continued.

1887 (49TH 2D).

Name.	Type.	Displacement.	Speed.	Mean draft.
		<i>Tons.</i>	<i>Knots.</i>	<i>Ft. in.</i>
Bennington.....	Gunboat.....	1,710	17.5	14 0
Concord.....	do.....	1,710	16.8	14 0
Miantonomoh.....	Monitor.....	3,990	10.5	14 6
Monterey.....	do.....	4,064	13.6	14 10
Philadelphia.....	Protected cruiser.....	4,410	19.678	19 6
San Francisco.....	do.....	4,068	19.525	18 9
Total.....		20,002		

1888 (50TH, 1ST).

Bancroft.....	Gunboat.....	830	14.37	12 2
Cincinnati.....	Protected cruiser.....	3,213	19	18 0
Detroit.....	Unprotected cruiser.....	2,089	18.71	14 7
Marblehead.....	do.....	2,089	18.44	14 7
Montgomery.....	do.....	2,089	19.05	14 7
New York.....	Armored cruiser.....	8,200	21	23 24
Olympia.....	Protected cruiser.....	5,870	21.686	21 6
Raleigh.....	do.....	3,213	19	18 0
Total.....		27,002		

1889 (50TH, 2D).

Castine.....	Gunboat.....	1,177	16.032	12 0
Katahdin.....	Ram.....	2,155	16.11	15 0
Maclias.....	Gunboat.....	1,177	15.46	12 0
Total.....		4,509		

1890 (51ST, 1ST).

Columbia.....	Protected cruiser.....	7,375	22.8	22 6
Ericason.....	Torpedo boat.....	120	24	4 9
Indiana.....	First-class battle ship.....	10,288	15.547	24 0
Massachusetts.....	do.....	10,288	16.21	24 0
Oregon.....	do.....	10,288	16.79	24 0
Total.....		38,359		

1891 (51ST, 2D).

Minneapolis.....	Protected cruiser.....	7,375	23.073	22 6
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1892 (52D, 1ST).

Brooklyn.....	Armored cruiser.....	9,215	21.91	24 0
Iowa.....	First-class battle ship.....	11,340	17.057	24 0
Total.....		20,555		

1893 (52D, 2D).

Helena.....	Gunboat.....	1,397	15.50	9 0
Nashville.....	do.....	1,371	16.30	11 0
Plunger.....	Submarine torpedo boat.....			
Wilmington.....	Gunboat.....	1,397	15.08	9 0
Total.....		4,165		

* Built at Government yard.

List, by years and sessions of Congress, of naval vessels authorized by acts of Congress from 1883 to 1905, inclusive—Continued.

1884 (48th, 2d).

Name.	Type.	Displacement.	Speed.	Max. draft.
		Tons.	Knots.	Ft.
Foote.....	Torpedo boat.....	142	24.534	4
Rodgers.....	do.....	142	24.46	4
Winslow.....	do.....	142	24.52	4
Total.....		426		

1886 (53d, 3d).

Annapolis.....	Gunboat.....	1,080	13.17	12
Dupont.....	Torpedo boat.....	165	25.56	4
Kearse.....	First-class battle ship.....	11,540	18.520	12
Kentucky.....	do.....	11,540	18.507	12
Marietta.....	Gunboat.....	1,080	13.02	12
Newport.....	do.....	1,080	12.29	16
Porter.....	Torpedo boat.....	165	28.630	4
Princeton.....	Gunboat.....	1,100		12
Rowan.....	Torpedo boat.....	182	27.074	5
Vicksburg.....	Gunboat.....	1,000	12.71	12
Wheeling.....	do.....	1,000	12.68	12
Total.....		20,732		

1896 (54th, 1st).

Alabama.....	First-class battle ship.....	11,865	17.103	23
Craven.....	Torpedo boat.....	145.4	30.5	4
Dahlgren.....	do.....	145.4	30.5	4
Davis.....	do.....	154	23.41	5
Farragut.....	do.....	279	30.13	6
Fox.....	do.....	154	23.13	5
Owin.....	do.....	45.78	30.88	3
Illinois.....	First-class battle ship.....	11,565	17.449	23
McKee.....	Torpedo boat.....	65	19.82	4
Mackenzie.....	do.....	65	20.11	4
Morris.....	do.....	104.75	24	4
Talbot.....	do.....	46.5	21.15	3
Wisconsin.....	First-class battle ship.....	11,683	17.174	23
Total.....		35,989.83		

1897 (55th, 1st).

Bailey.....	Torpedo boat.....	280	30.108	6
Chesapeake.....	Training ship.....	1,175		16
Goldborough.....	Torpedo boat.....	247.5	30	5
Stringham.....	do.....	340	30	6
Total.....		2,042.5		

1898 (55th, 2d).

Arkansas.....	Monitor.....	3,235	11.50	12
Bagley.....	Torpedo boat.....	175	29.2	4
Bainbridge.....	Torpedo-boat destroyer.....	420	29	6
Barney.....	Torpedo boat.....	175	29.1	4
Barry.....	Torpedo-boat destroyer.....	420	29	6
Biddle.....	Torpedo boat.....	175	28	4
Blakely.....	do.....	200	26	5
Chauncey.....	Torpedo-boat destroyer.....	420	29	6
Dale.....	do.....	420	28	6
Decatur.....	do.....	420	28	6
De Long.....	Torpedo boat.....	200	26	5
Florida.....	Monitor.....	3,235	11.50	12
Gunboat No. 16.....	Gunboat.....	537		
Hopkins.....	Torpedo-boat destroyer.....	408	29	6
Hull.....	do.....	408	29	6
Lawrence.....	do.....	402	30	6
Macdonough.....	do.....	402	30	6

List, by years and sessions of Congress, of naval vessels authorized by acts of Congress from 1883 to 1905, inclusive—Continued.

1898 (55TH, 2d)—Continued.

Name.	Type.	Displacement.	Speed.	Mean draft.
		<i>Tons.</i>	<i>Knots.</i>	<i>Ft. in.</i>
Maine.....	First-class battle ship.....	12,300	18	22 6
Missouri.....	do.....	12,240	18	23 6
Nevada.....	Monitor.....	3,228	11.50	12 6
Nicholson.....	Torpedo boat.....	174	26	4 6
O'Brien.....	do.....	174	26	4 6
Ohio.....	First-class battle ship.....	12,440	18	23 6
Paul Jones.....	Torpedo-boat destroyer.....	420	29	6 6
Perry.....	do.....	420	29	6 6
Preble.....	do.....	420	29	6 6
Shubrick.....	Torpedo boat.....	200	25	5 2
Stewart.....	Torpedo-boat destroyer.....	420	29	6 6
Stockton.....	Torpedo boat.....	200	24.75	5 2
Thornton.....	do.....	200	26	5 2
Tingey.....	do.....	165	26	4 8
Truxton.....	Torpedo-boat destroyer.....	433	30	6 0
Whipple.....	do.....	433	30	6 0
Wilkes.....	Torpedo boat.....	165	26.50	4 8
Worden.....	Torpedo-boat destroyer.....	433	30	6 0
Wyoming.....	Monitor.....	3,218	11.50	12 6
Total.....		50,336		

1899 (55TH, 3d).

California.....	Armored cruiser.....	13,680	22	24 1
Chattanooga.....	Protected cruiser.....	3,200	16.5	15 9
Cleveland.....	do.....	3,200	16.5	15 9
Denver.....	do.....	3,200	16.5	15 9
Des Moines.....	do.....	3,200	16.5	15 9
Galveston.....	do.....	3,200	16.5	15 9
Georgia.....	First-class battle ship.....	14,948	19	26 9
Nebraska.....	do.....	14,948	19	23 9
Pennsylvania.....	Armored cruiser.....	13,680	22	24 1
Tacoma.....	Protected cruiser.....	3,200	16.5	15 9
Virginia.....	First-class battle ship.....	14,948	19	23 9
West Virginia.....	Armored cruiser.....	13,630	22	24 1
Total.....		105,034		

1900 (56TH, 1st).

*Adder.....	Submarine torpedo boat.....			
Charleston.....	Protected cruiser.....	9,700	22	22 6
Colorado.....	Armored cruiser.....	13,680	22	24 1
*Grampus.....	Submarine torpedo boat.....			
*Holland.....	do.....			
Maryland.....	Armored cruiser.....	13,680	22	24 1
Milwaukee.....	Protected cruiser.....	9,700	22	22 6
*Moccasin.....	Submarine torpedo boat.....			
New Jersey.....	First-class battle ship.....	14,948	19	23 9
*Pike.....	Submarine torpedo boat.....			
*Porpoise.....	do.....			
Rhode Island.....	First-class battle ship.....	14,948	19	23 9
St. Louis.....	Protected cruiser.....	9,700	22	22 6
*Shark.....	Submarine torpedo boat.....			
South Dakota.....	Armored cruiser.....	13,680	22	24 1
Total.....		100,036		

1902 (57TH, 1st).

Connecticut ^a	First-class battle ship.....	16,000	18	24 6
Dubuque.....	Gunboat.....	1,050	12.50	12 3
Louisiana.....	First-class battle ship.....	16,000	18	23 9
Paducah.....	Gunboat.....	1,100	12	12 9
Tennessee.....	Armored cruiser.....	14,500	22	25 0
Washington.....	do.....	14,500	22	25 0
Total.....		63,150		

^a Built in Government yard.

List, by years and sessions of Congress, of naval vessels authorized by acts of Congress from 1883 to 1905, inclusive—Continued.

1903 (57th, 2d).

Name.	Type.	Displacement.	Speed.	Mean draft.
		<i>Tons.</i>	<i>Knots.</i>	<i>Ft. in.</i>
Cumberland ^a	Training ship.....	1,800		16 5½
Idaho.....	First-class battle ship.....	13,000	17	24 6
Intrepid.....	Training ship.....	1,800		16 5½
Kansas.....	First-class battle ship.....	16,000	18	24 6
Minnesota.....	do.....	16,000	18	24 6
Mississippi.....	do.....	13,000	17	24 8
Vermont.....	do.....	16,000	18	24 6
Total.....		77,600		

1904 (58th, 2d).

New Hampshire.....	First-class battle ship.....	16,000	18	24 6
North Carolina.....	Armored cruiser.....	14,500	22	25 0
Montana.....	do.....	14,500	22	25 0
Chester.....	Scout cruiser.....	3,750		
Birmingham.....	do.....	3,750		
Salem.....	do.....	3,750		
Vestal.....	Fleet collier.....			
Prometheus.....	do.....			
Total.....		56,250		

1905 (59th, 3d).

South Carolina.....	First-class battle ship.....	16,000		
Michigan.....	do.....	16,000		
Total.....		32,000		
Grand total.....		711,282.33		

^a Built in Government yard.

NAVAL PROGRAMME.

The naval appropriation act of last year provided—

That for the purpose of further increasing the naval establishment of the United States, the President is hereby authorized to have constructed by contract or in navy-yards as hereinafter provided—

One first-class battle ship, carrying as heavy armor and as powerful armament as any known vessel of its class, to have the highest practicable speed and greatest practicable radius of action, and to cost, exclusive of armament and armor, not exceeding six million dollars: *Provided*, That before approving any plans or specifications for the construction of such battle ship the Secretary of the Navy shall afford, by advertisement or otherwise, in his discretion, a reasonable opportunity to any competent constructor who may desire so to do, to submit plans and specifications for his consideration, for which said plans, should the same be used by the Department and be not submitted by or on behalf of a successful bidder for the contract, such compensation shall be paid as the Secretary of the Navy shall deem just and equitable out of the amount herein appropriated under the head "Contingent, Navy": *Provided*, That before any proposals for said battle ship shall be issued or any bids received and accepted the Secretary of the Navy shall report to Congress at its next session full details covering the type of such battle ship and the specifications for the same, including its displacement, draft, and dimensions, and the kind and extent of armor and armament therefor.

The Secretary of the Navy has complied with this provision, as shown by House Document No. 295, in his report to the Speaker of the House of Representatives.

The committee recommend this year the following:

That, for the purpose of further increasing the naval establishment of the United States, the President is hereby authorized to have constructed, by contract or in navy-yards, as hereinafter provided, one first-class battle ship similar in all essential characteristics, and additional to, the battle ship authorized by the act making appropriations for the naval service for the fiscal year ending June thirtieth, nineteen hundred and seven, plans and specifications for which last-named vessel have already been prepared and submitted by the Secretary of the Navy for the information of Congress, as required by the provisions of the aforesaid act.

Two torpedo-boat destroyers, to have the highest practicable speed, and to cost exclusive of armor and armament not to exceed eight hundred and fifty thousand dollars each.

The Committee further recommend the following provision:

That the provision in the naval appropriation act approved June twenty-ninth, nineteen hundred and six, authorizing the Secretary of the Navy to contract for submarine boats after certain tests to be completed by March twenty-ninth, nineteen hundred and seven, is hereby amended, in accordance with the recommendation of the Secretary of the Navy, so as to extend the test period until May twenty-ninth, nineteen hundred and seven; and the limit of cost provided for in the authorization aforesaid is hereby increased to three million dollars, and the sum of one million dollars, which includes the half million dollars heretofore appropriated, is hereby appropriated, and to remain available until expended.

FOREIGN NAVAL PROGRAMMES.

NAVY DEPARTMENT,
Washington, December 20, 1906.

SIR: I have the honor to transmit herewith some information concerning the shipbuilding programmes of foreign navies compiled at your request by the Office of Naval Intelligence.

Very respectfully,

V. H. METCALF, *Secretary.*

Hon. GEORGE EDMUND FOSS,
*Chairman of the Committee on Naval Affairs,
House of Representatives.*

OFFICE OF NAVAL INTELLIGENCE,
December 20, 1906.

This memorandum of information is in response to a request by the chairman of the Committee on Naval Affairs, House of Representatives, dated December 18, 1906.

Contents: Compilations showing for the five principal naval powers the building programmes, together with tables showing the vessels completed during the past year and vessels building and to be built.

R. P. RODGERS,
Captain, U. S. Navy, Chief Intelligence Officer.

OFFICE OF NAVAL INTELLIGENCE,
January 1, 1907.

NAVAL BUILDING PROGRAMMES.

England.—England has no continuous policy of construction. The rate at which England continues to lay down ships and to push them forward to completion indicates clearly the intention to maintain her position with respect to the other naval powers.

During the year 1906 the following vessels were completed: *Battle ships*, 4—*Africa*, *Brittania*, *Hibernia*, *Dreadnaught*. *Armored cruisers*, 2—*Duke of Edinburg*, *Black Prince*. *Destroyers*, 8—*Colne*, *Swale*, *Wear*, *Gala*, *Garry*, *Ness*, *Nith*, *Ouse*.

The programme for 1906-7 carries an appropriation of £6,800,000 (\$34,000,000) for new construction, to be expended as follows: 3 *Dreadnaughts*, 2 ocean-going *destroyers*, 12 coastal *destroyers*, 8 *submarines*.

The programme for 1907-8 has not yet been announced.

Vessels completed in 1906.

[The speed is given as designed. *Italic figures* denote speed actually made on trial.]

[Vessels marked T are fitted with turbines.]

BATTLE SHIPS.

Vessels.	Displacement.	Length.	Indicated horse-power.	Speed.	Programme.	Date of commissioning.
	<i>Tons.</i>	<i>Feet.</i>		<i>Knots.</i>		
<i>Africa</i>	16,350	.....	18,000	<i>18.5</i>	1903-4	Nov. 6.
<i>Brittania</i>	16,350	.....	18,000	<i>18.5</i>	1903-4	Oct. 2.
<i>Hibernia</i>	16,350	.....	18,000	<i>18.5</i>	1903-4	
<i>Dreadnaught</i>	17,900	.....	^a 24,712 ^b 27,518	^a <i>21.85</i> ^b <i>21.6</i>	1905-6	Do.

ARMORED CRUISERS.

<i>Black Prince</i>	12,550	.....	23,500	<i>23.6</i>	1902-3	Mar. 27.
<i>Duke of Edinburgh</i>	12,550	.....	23,500	<i>23.7</i>	1902-3	Mar. 13.

DESTROYERS.

<i>Colne</i>	560	222	7,500	<i>25.5</i>	1903-4	May.
<i>Gala</i>	570	225	7,500	<i>25.5</i>	1903-4	August.
<i>Garry</i>	590	230	7,500	<i>26.5</i>	1903-4	April.
<i>Ness</i>	555	225	7,000	<i>25.5</i>	1903-4	May.
<i>Nith</i>	555	225	7,000	<i>26.5</i>	1903-4	July.
<i>Ouse</i>	550	220	7,000	<i>25.5</i>	1903-4	May.
<i>Swale</i>	550	225	7,000	<i>26.5</i>	1903-4	February.
<i>Wear</i>	550	225	7,000	<i>25.5</i>	1903-4	May.

^a Mean results of 8 hours' full-power trial.

^b Mean of four runs over the measured mile.

Vessels building and to be built.

BATTLE SHIPS.

Vessel.	Displacement.	Length.	Indicated horse-power.	Speed.	Where building.	Programme.	Date of launch.
	<i>Tons.</i>	<i>Feet.</i>		<i>Knots.</i>			
<i>Agamemnon</i>	16,500	.....	16,750	18.0	Beardmore.....	1904-5	June, 1906.
<i>Lord Nelson</i>	16,500	.....	16,750	18.0	Palmer.....	1904-5	Sept., 1906.
<i>Dreadnought II</i>	Over	.....	T. (?)	(?)	Portsmouth.....	1906-7	
<i>Dreadnought III</i>	18,000	.....	T. (?)	(?)	Devonport.....	1906-7	
<i>Dreadnought IV</i>	tons.	.....	T. (?)	(?)	(?)	1906-7	

Vessels building and to be built—Continued.

ARMORED CRUISERS.

Vessel.	Dis- place- ment.	Length.	Indi- cated horse- power.	Speed.	Where building.	Pro- gramme.	Date of launch.
	<i>Tons.</i>	<i>Feet.</i>		<i>Knots.</i>			
Achilles.....	13,550	.....	23,500	22.5	Armstrong.....	1903-4	June, 1905.
Cochrane.....	13,660	.....	23,500	22.5	Fairfield.....	1903-4	May, 1905.
Natal.....	13,550	.....	23,500	22.5	Barrow.....	1903-4	Sept., 1905.
Warrior.....	13,660	.....	23,500	22.5	Pembroke.....	1903-4	Nov., 1905.
Defence.....	14,600	.....	27,000	23.0	do.....	1904-6	
Minotaur.....	14,600	.....	27,000	23.0	Devonport.....	1904-5	June, 1906.
Shannon.....	14,600	.....	27,000	23.0	Chatham.....	1904-5	Sept., 1906.
Invincible.....	17,280	.....	T (?)	25.0	Armstrong.....	1905-6	
Infexible.....	17,280	.....	T (?)	25.0	J. Brown & Co.....	1905-6	
Indomitable.....	17,280	.....	T (?)	25.0	Fairfield.....	1905-6	

OCEAN-GOING DESTROYERS.

Swift.....	1,800	.....	T20,000	26.0	Laird.....	1905-6	
Afridi.....	785	.....	T14,250	33.0	Armstrong.....	1905-6	
Ghurka.....	780	.....	T14,250	32.0	Hawthorne.....	1905-6	
Tartar.....	770	.....	T14,500	33.0	Chiswick.....	1905-6	
Mohawk.....	765	.....	T14,500	33.0	Cowes.....	1905-6	
Cossack.....	786	.....	T14,000	33.0	Laird.....	1905-6	
One vessel.....	(?)	.....	(?)	(?)	(?)	1906-7	
One vessel.....	(?)	.....	(?)	(?)	(?)	1906-7	

COASTAL DESTROYERS.

Gadfly.....	215	167	T3,750	27.5	Chiswick.....	1905-6	May, 1906.
Glowworm.....	215	167	T3,750	26.0	do.....	1905-6	Sept., 1906.
Gnat.....	215	167	T3,750	26.0	do.....	1905-6	
Grasshopper.....	215	167	T3,750	26.0	do.....	1905-6	
Greenfly.....	215	167	T3,750	26.0	do.....	1905-6	
Cricketer.....	235	175	T3,750	26.0	Cowes.....	1905-6	June, 1906.
Dragonfly.....	235	175	T3,750	26.0	do.....	1905-6	
Firefly.....	235	175	T3,750	26.0	do.....	1905-6	Sept., 1906.
Sandfly.....	235	175	T3,750	26.0	do.....	1905-6	
Spider.....	235	175	T3,750	26.0	do.....	1905-6	
Mayfly.....	225	172	T3,750	26.0	Poplar.....	1905-6	
Moth.....	225	172	T3,750	26.0	do.....	1905-6	
4 boats.....	.....	.....	.....	.....	Cowes.....	1906-7	
2 boats.....	.....	.....	.....	.....	Dunbarton.....	1906-7	
2 boats (like Gadfly class).....	.....	.....	.....	.....	Hawthorn.....	1906-7	
2 boats (details not known).....	.....	.....	.....	.....	Thornycroft.....	1906-7	
1 boat.....	.....	.....	.....	.....	Palmer.....	1906-7	
1 boat.....	.....	.....	.....	.....	Yarrow.....	1906-7	

SUBMARINES.

C1-C11.....	313	.....	600	14.0	Vickers.....	1905-6	1906-7.
D1-D8.....	(?)	(?)	1906-7	

SPECIAL CLASS.

Cyclops (repair ship).....	11,000	3,500	12.0	Sunderland.....	1906.
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* These, though officially classed as armored cruisers, are practically fast battle ships.

OFFICE OF NAVAL INTELLIGENCE,
January 1, 1907.

NAVAL BUILDING PROGRAMME.

France.—France has no continuous policy of naval construction.

In submitting its estimates for the budget of 1907 the ministry, in accordance with the recommendations of the superior council, announced the following suitable theoretical composition of the fleet: 38 battle ships, 20 armored cruisers, 6 "squadron scouts," 109 destroyers, 170 torpedo boats, 82 offensive submarines, and 49 defensive submarines.

The number of modern battle ships on hand being far below this figure, authority had been requested during the discussion of the previous budget for the laying down in 1906 of 6 battle ships. This authority has been affirmed by a recent vote of the chamber. The construction of 2 of these vessels has been ordered at Brest and Lorient, respectively, and a third is to be built by contract. The other 3, the designs of which were somewhat delayed owing to the adoption, after extensive investigation of the subject, of turbine machinery, are also to be laid down as soon as possible, probably at private shipyards.

PROGRAMME OF NEW CONSTRUCTION FOR 1907.

In view of the large number of vessels that are, or will be, under construction, which includes not only the 6 battle ships above mentioned but also 4 others now nearing completion, together with 4 armored cruisers and a large number of torpedo craft, the estimates for 1907 propose the laying down of only 5 destroyers and 10 submarines. The destroyers are to be built by contract, but the submarines—in accordance with custom—at Government dockyards for the purpose of safeguarding official secrets as to their designs.

To fulfill the conditions specified by the superior council there remain to be built the following additions to the fleet, besides those proposed in this year's estimates: 9 battle ships, 6 scouts, 40 destroyers, and 31 offensive submarines.

Several older vessels of small fighting value have been condemned and are gradually being disposed of by sale or otherwise. Among these are the *Tage* (1886), *Cécille* (1888), and *Suchet* (1893), protected cruisers of 7,300, 5,900, and 3,400 tons, respectively.

Vessels completed in 1906.

[Speed is given as designed. Italic figures denote speed actually made on trial.]

BATTLE SHIPS.

Vessel.	Displacement.	Length.	Indicated horsepower.	Speed.	Where built.	Programme.	Date of launch.
	<i>Tons.</i>	<i>Feet.</i>		<i>Knots.</i>			
République.....	14,860	.....	18,000	<i>18.8</i>	Brest.....	1901	Sept., 1902
Patrie.....	14,860	.....	18,000	<i>18.1</i>	La Seyne.....	1901	Dec., 1903.

Vessels completed in 1906.

ARMORED CRUISERS.

Vessel.	Displacement.	Length.	Indicated horse-power.	Speed.	Where built.	Programme.	Date of launch.
	<i>Tons.</i>	<i>Feet.</i>		<i>Knots.</i>			
Jules Ferry.	12,550	.....	27,500	22.0	Cherbourg.....	1900	Aug., 1903.
Victor Hugo.....	12,550	27,500	22.0	Lorient.....	1901	Mar., 1904.

DESTROYER.

Claymore.....	335	190	6,800	30.5	Normand.....	1903	1905.
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TORPEDO BOATS.

52 boats.....	97	125	2,000	26.0	Various.....	1904	1905-6.
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SUBMARINE.

Emeraude.....	390	146.5	600	12.0	Cherbourg.....	1903	1905.
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Vessels building or to be built.

BATTLE SHIPS.

Vessel.	Displacement.	Length.	Indicated horse-power.	Speed.	Where building.	Programme.	Launched.
	<i>Tons.</i>	<i>Feet.</i>		<i>Knots.</i>			
Démocratie.....	14,860	.....	18,000	18.0	Brest.....	1902	Apr., 1904.
Justice.....	14,860	.....	18,000	18.0	La Seyne.....	1902	Sept., 1904.
Liberté.....	14,860	.....	18,000	18.0	St. Nazaire.....	1902	Apr., 1905.
Vérité.....	14,860	.....	18,000	18.0	Bordeaux.....	1902	
Mirabeau.....	18,000	.....	22,500	19.0	Lorient.....	1906	No.
Danton.....	18,000	.....	22,500	19.0	Brest.....	1906	No.
Voltaire.....	18,000	.....	22,500	19.0	.....	1906	No.
Diderot.....	18,000	.....	22,500	19.0	.....	1906	No.
Condorcet.....	18,000	.....	22,500	19.0	.....	1906	No.
Vergniaud.....	18,000	.....	22,500	19.0	.....	1906	No.

ARMORED CRUISERS.

Jules Michelet	12,750	.....	27,500	22.0	Lorient.....	1902	Aug., 1905.
Ernest Renan.....	13,644	.....	36,000	23.0	St. Nazaire.....	1902	Apr., 1906.
Edgar Quinet.....	14,000	.....	36,000	23.0	Brest.....	1904	No.
Waldeck Rousseau...	14,000	.....	36,000	23.0	Lorient.....	1906	No.

Vessels building or to be built—Continued.

DESTROYERS.

Vessel.	Displacement.	Length.	Indicated horse-power.	Speed.	Where building.	Programme.	Launched.
	Tons.	Feet.		Knots.			
Stylet.....	335	190	6,800	28.0	Rochefort.....	1902	1905.
Tromblon.....	335	190	6,800	28.0	do.....	1902	1905.
Pierrier.....	335	190	6,800	28.0	do.....	1903	No.
Obusier.....	335	190	6,800	28.0	do.....	1903	1905.
Mortier.....	335	190	6,800	28.0	do.....	1903	1906.
Carguols.....	335	190	6,800	28.0	do.....	1904	No.
Trident.....	335	190	6,800	28.0	do.....	1904	No.
Fleuret.....	335	190	6,800	28.0	do.....	1905	No.
Contelas.....	335	190	6,800	28.0	do.....	1905	No.
Glaive.....	335	190	6,800	28.0	do.....	1905	No.
Poignard.....	335	190	6,800	28.0	do.....	1905	No.
Cognée.....	335	190	6,800	28.0	Toulon.....	1905	No.
Hache.....	335	190	6,800	28.0	do.....	1905	No.
Massue.....	335	190	6,800	28.0	do.....	1905	No.
Sabretache.....	335	190	6,800	28.0	Nantes.....	1905	No.
Oriflamme.....	335	190	6,800	28.0	do.....	1905	No.
Etendarde.....	335	190	6,800	28.0	Bordeaux.....	1905	No.
Fanlon.....	335	190	6,800	28.0	do.....	1905	No.
Sape.....	335	190	6,800	28.0	Rouen.....	1905	No.
Gabion.....	335	190	6,800	28.0	do.....	1905	No.
Branlebas.....	450	190	6,800	25.0	Havre.....	1905	No.
Fanfare.....	450	190	6,800	25.0	do.....	1905	No.
Huzzard.....	400					1906/	No.
Voltigeur.....	400					1906	No.
Tirailleur.....	400	207	78,000	28.0	Gironde.....	1906	No.
Chasseur.....	400		T		Normand.....	1906	No.
Spahl.....	400				F. & CH., Med.	1906	No.
Carabinier.....	400				Rouen.....	1906	No.
M61 ^b						1906	No.
M62 ^b						1906	No.
M63 ^b						1906	No.
M64 ^b						1906	No.
M65-M69 ^c						^c 1907	

SUBMARINES.

Opale.....	390	146.5	600	12.0	Cherbourg.....	1903	Oct., 1904.
Rubis.....	390	146.5	600	12.0	do.....	1903	Dec., 1904.
Saphir.....	390	146.5	600	12.0	Toulon.....	1903	Mar., 1905.
Topaze.....	390	146.5	600	12.0	do.....	1903	Do.
Turquoise.....	390	146.5	600	12.0	do.....	1903	Do.
Guêpe 1.....	45	67	240	10.5	Cherbourg.....	1904	
Guêpe 2.....	45	67	240	10.5	do.....	1904	

SUBMERSIBLES.

Omega.....	300	160	330	11.0	Toulon.....		
Circe.....	350	155	440	11.75	do.....	1904	No.
Calypso.....	350	155	440	11.75	do.....	1904	No.
Q51-Q60.....	398	167.6	700	12.0	Cherbourg.....	1906	No.
Q62-Q63.....	398	167.6	700	12.0	do.....	1905	No.
Q64-Q66.....	398	167.6	700	12.0	Rochefort.....	1905	No.
Q67-Q69.....	398	167.6	700	12.0	Toulon.....	1905	No.
Q70-Q72.....	398	167.6	700	12.0	Cherbourg.....	1906	No.
Q73-Q79.....	398	167.6	700	12.0	Rochefort.....	1906	No.
Q80-Q85.....	398	167.6	700	12.0	Toulon.....	1906	No.
Q86-Q89 ^d						1906	
Q90-Q99 ^c						1907	

Total: 7 submarines, 51 submersibles—58 boats.

^a These two vessels are provided with armor 1.6 to 2 inches thick to cover the motive and steaming apparatus and other vital parts. This is intended as an experiment. Their speed is reduced to 25 knots. Otherwise they resemble the other vessels of the same programme.

^b Details not yet published.

^c Projected for.

^d Plans not completed.

OFFICE OF NAVAL INTELLIGENCE,
January 1, 1907.

NAVAL BUILDING PROGRAMME.

Germany.—The fleet law of 1900, as amended in the spring of 1906, provides for the following total theoretical strength in ships: 38 battle ships, 20 armored cruisers (large), 38 protected cruisers (small), 144 torpedo craft (12 flotillas).

This strength is to be gradually attained by a systematic programme of construction which provides for the laying down each year until 1917 of certain ships additional to the existing fleet and substitutes for vessels that have reached the age limit.

Year.	Battle ships.	Armored cruisers (large).	Protected cruisers (small).	Torpedo craft.
1907.....	2 substitute ships...	1 additional ship....	2 substitute ships...	6 substitute, 6 additional.
1908.....	do.....	do.....	do.....	Do.
1909.....	do.....	do.....	do.....	Do.
1910.....	1 additional ship....	1 substitute ship....	do.....	Do.
1911.....	1 substitute ship....	do.....	do.....	Do.
1912.....	do.....	1 additional ship....	do.....	Do.
1913.....	do.....	do.....	do.....	Do.
1914.....	do.....	do.....	do.....	12 substitute boats.
1915.....	do.....	do.....	do.....	Do.
1916.....	do.....	do.....	do.....	Do.
1917.....	2 substitute ships...	do.....	do.....	Do.

This programme has been rigidly carried out since its inception in 1900, and any possible future change would doubtless be in the nature of further increase.

The building of submarines and auxiliary vessels is not governed by any fixed programme, being the subject of specific appropriations from year to year.

Submarines.—Appropriations have been made as follows for “experimental purposes and the purchase of submarines:” 1905, 1,500,000 marks; 1906, 2,500,000 marks, and 3,000,000 marks proposed for 1907. Two experimental boats were built by Krupp at the Germania yards, and during the past year the first submarine built for the navy was put in the water and is now undergoing extensive trials. The Government’s plans as to further acquisition of submarines and the type thereof have not been announced.

Mining vessels.—Mining steamer “A,” named the *Nautilus*, was launched last August at the Weser yards, Bremen, and a second vessel, “B,” has recently been ordered.

Vessels completed in 1906.

[The speed is given as designed. Italic figures denote speed actually made on trial.]

[Vessels marked T are fitted with turbines.]

BATTLE SHIPS.

Vessels.	Displacement.	Length.	Indicated horse-power.	Speed.	Where built.	Programme.	Launched.
	<i>Tons.</i>	<i>Feet.</i>		<i>Knots.</i>			
Lothringen.....	13,200	.....	16,000	18.0	Schichau.....	1903	May, 1904.
Deutschland.....	13,200	.....	16,000	18.6	Germania.....	1903	Nov., 1904.

Vessels completed in 1906—Continued.

PROTECTED CRUISERS (SMALL).

Vessels.	Displacement.	Length.	Indicated horse-power.	Speed.	Where built.	Programme.	Launched.
	<i>Tons.</i>	<i>Feet.</i>		<i>Knots.</i>			
Leipzig.....	3,250	.....	11,000	23	Weser.....	1904	Mar., 1905.
Danzig.....	3,250	.....	11,000	23	Danzig.....	1904	Sept., 1905.

DESTROYERS.

G 132.....	480	207	T 6,000	28.5	Germania.....	1905	May, 1906.
G 133.....	480	207	T 6,000	28.5	.....do.....	1905	June, 1906.
G 134.....	480	207	T 6,000	28.5	.....do.....	1905	July, 1906.
G 135.....	480	207	T 6,000	28.5	.....do.....	1905	Aug., 1906.
G 136.....	480	207	T 6,000	28.5do.....	1905	Sept., 1906.
G 137.....	570	T 9,000	30.0do.....	1905	Do.

SUBMARINES.

U 1.....	180	• 12	Germania.....	1905-6	1906.
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MINING STEAMER.

Nautilus.....	Weser.....	1905	Aug., 1906.
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• Surface speed.

Vessels building and to be built.

BATTLE SHIPS.

Vessel.	Displacement.	Length.	Indicated horse-power.	Speed.	Where building.	Programme.	Launched.
	<i>Tons.</i>	<i>Feet.</i>		<i>Knots.</i>			
Pommern.....	13,200	.....	16,000	18	Vulcan ..	1904	Dec., 1905.
Hanover.....	13,200	.....	16,000	18	Wilhelmshaven.	1904	Sept., 1905.
"Q".....	13,200	.....	16,000	18	Germania.	1905	No.
Schlesien.....	13,200	.....	16,000	18	Schichau.	1905	May, 1906.
Ersatz Bayern.....	18,000	.....	(?)	(?)	Wilhelmshaven.	1906	Not yet laid down.
Ersatz Sachsen.....	18,000	.....	(?)	(?)	Germania.	1906	
Ersatz Baden.....	(?)	.....	(?)	(?)	(?)	1907	
Ersatz Wurttemberg.....	(?)	.....	(?)	(?)	(?)	1907	

ARMORED CRUISERS (LARGE).

Gneisenau.....	11,500	.....	26,000	22.5	Weser ..	1904	June, 1906.
Scharnhorst.....	11,500	.....	26,000	22.5	Blohm & Voas.	1906	Mar., 1906.
E.....	15,000	.....	T (?)	(?)	Kiel.....	1906	Not yet laid down.
F.....	(?)	.....	(?)	(?)	(?)	1907	

PROTECTED CRUISERS (SMALL).

Koenigsberg.....	3,450	.....	13,200	23.5	Kiel.....	1904	Dec., 1905.
Stuttgart.....	3,450	.....	T 13,200	23.5	Danzig ..	1906	Sept., 1906.
Ersatz Wacht.....	3,450	.....	T 13,200	23.5	Vulkan ..	1905	No.
Nurnberg.....	3,450	.....	13,200	23.5	Kiel.....	1906	Aug., 1906.
Ersatz Comet.....	3,800	.....	T 13,700	24.5	Blohm & Voas.	1906	No.
Ersatz Pfeil.....	3,800	.....	13,700	24.5	Danzig ..	1906	No.
Ersatz Greif.....	(?)	.....	(?)	(?)	(?)	1907	No.
Ersatz Jagd.....	(?)	.....	(?)	(?)	(?)	1907	No.

Vessels building and to be built—Continued.

DESTROYERS.

Vessel.	Displacement.	Length.	Indicated horsepower.	Speed.	Where building.	Programme.	Launched.
		<i>Feet.</i>		<i>Knots.</i>			
S. 138-S. 149.....	530	223	10,000	30	Schichau.	1906	No.
S. 150-S. 161.....	(?)			(?)	(?)	1907	

SUBMARINES.

(Programme not published.)

MINING VESSELS.

B.....	(?)	(?)	(?)	(?)	Weese...	1906	No.
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OFFICE OF NAVAL INTELLIGENCE,
January 1, 1907.

NAVAL BUILDING PROGRAMME.

Japan.—Japan is now carrying out the third naval expansion scheme. This law passed the Diet in 1903, and is to be completed in eleven years, beginning at the year 1903 and ending with 1913. It does not, however, provide for a definite programme of construction as regards numbers or classes of ships, but appropriates a fixed sum of money which is apportioned yearly toward ships, ordnance, and buildings.

This third naval expansion scheme, adopted the year before the Russian war, but without any capital fund assigned to it, is being steadily pursued. The appropriations in this year's budget for new naval construction, ordnance, and navy-yard buildings are precisely equal to the sums projected three years ago.

In addition to the above there was passed March 13, 1906, an appropriation known as the "Extraordinary war fund," the navy's share of which this year amounts to 22,620,000 yen. This is supposed to cover post-bellum expenses, such as replacing damaged equipment, repairing injuries to ships, rebuilding Russian prizes, and also, apparently, some new construction to replace ships lost. The expenditures under this appropriation are to be spread over a period of eight years, the project thus expiring coincidently with the third naval-expansion scheme in 1913.

There still remain to be laid down under the third naval-expansion scheme the following vessels: One battle ship, 2 armored cruisers (possibly 3), and 2 second-class protected cruisers.

These are in addition to vessels now building, which are specified in the following tables:

Vessels completed in 1906.

Vessel.	Displacement.	Indicated horsepower.	Speed.	Where built.	Programme.	Date of launch.
Battle ships:	<i>Tons.</i>					
Kashima.....	16,500	17,280	<i>19.8</i>	Armstrong.....	Third Naval Experimenting School.	Mar., 1905.
Katori.....	16,500	17,000	<i>20.8</i>	Vickers.....	do.....	July, 1905.
Destroyers:						
7 boats.....	375	6,000	29	Yokosuka.....	Extraordinary war fund.	1905-6.
5 boats.....	375	6,000	29	Nagasaki.....	do.....	1906.
5 boats.....	375	6,000	29	Kobe.....	do.....	1905-6.
4 boats.....	375	6,000	29	Sasebo.....	do.....	1905.
2 boats.....	375	6,000	29	Kure.....	do.....	1905.
2 boats.....	375	6,000	29	Maizuru.....	do.....	1905.
2 boats.....	375	6,000	29	Osaka.....	do.....	1905.
2 boats.....	375	6,000	29	Uraga.....	do.....	1905.
20 boats.....	375	6,000	29	Japan.....	do.....	1905-6.

NOTE.—Speed is given as designed. When in *italics* the figures denote speed actually made on trial.

Vessels building and to be built under third naval expansion scheme and extraordinary war fund.

BATTLE SHIPS.

Vessel.	Displacement.	Indicated horsepower.	Speed.	Where building.	Laid down.	Launched.
Satsuma.....	19,150	17,500	18.25	Yokosuka.....	Apr. —, 1905	Nov., 1905.
Aki.....	19,800	T24,000	20.00	Kure.....	Dec. —, 1905	No.

ARMORED CRUISERS.

Tsukuba.....	13,750	20,500	20.5	Kure.....	Jan. —, 1905	Dec., 1905.
Ikoma.....	13,750	20,500	20.5	do.....	Mar. —, 1905	Apr., 1905.
Kurama.....	14,600	22,500	21.25	Yokosuka.....	Sept. —, 1905	No.
Ibuki.....	14,600	T24,000	22.00	Kure.....	No.....	No.

CRUISERS.

Tone.....	4,100	15,000	23.00	Sasebo.....	1905.	No.
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SCOUT CRUISERS (OR DISPATCH BOATS).

Yodo.....	1,250	6,500	22.00	Kobe.....	No. 1905	No.
Mogami (T).....	1,350	8,000	23.00	Nagasaki.....	No.....	No.

NOTE.—Vessels marked "T" are fitted with turbines.

OFFICE OF NAVAL INTELLIGENCE,
January 1, 1907.

NAVAL BUILDING PROGRAMME.

Russia.—Russia has no continuing shipbuilding programme. The Russian Government contemplates the immediate acquisition of a squadron of 4 dreadnoughts.

Vessels completed in 1906.

DESTROYERS.

	Displace- ment.	Indicat- ed horse- power	Speed.	Where built.	Launched.
	<i>Tons.</i>		<i>Knots.</i>		
4 boats.....	625			Krupp.....	1905-6.
8 boats.....	570	6,500	27.0	do.....	1905-6.
8 boats.....	500	5,200	26.0	do.....	1905-6.
10 boats.....	350	3,800	26.0	Germany.....	1905-6.
9 boats.....	350	3,800	26.0	Nicolaiëff.....	1905-6.
8 boats.....	330	3,800	26.0	France.....	1905-6.
3 boats.....	330	3,800	26.0	do.....	1905-6.

SUBMARINES.

5 boats.....	180	(?)	10.0	Russia.....	1905.
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Vessels building and to be built.

BATTLE SHIPS.

Vessels.	Displace- ment.	Indi- cated horse- power.	Speed.	Where built.	Launched.
	<i>Tons.</i>		<i>Knots.</i>		
Evstafi.....	12,700	10,000	16.0	Nicolaiëff.....	No.
Ioann Zlatoust.....	12,700	10,000	16.0	do.....	No.
Imperator Pavell.....	16,000	17,600	18.0	St. Petersburg.....	May, 1906.
Andreï Pervoevanni.....	16,000	17,600	18.0	do.....	Oct., 1906.

* For Black Sea Fleet.

Four new vessels of the Dreadnought type. Details not known.

ARMORED CRUISERS.

Rurik.....	15,000	19,700	21.0	Barrow, England.....	Nov., 1906.
Bayan.....	8,000	16,500	21.0	St. Petersburg.....	
Pallada.....	8,000	16,500	21.0	do.....	Do.
Makarov.....	8,000	16,500	21.0	La Seyne, France.....	May, 1906.

CRUISERS.

Giliak.....	(?) 1,300	1,000	12.0	Russia.....	No.
Koreetz.....	1,300	1,000	12.0	do.....	No.
Sivouch.....	1,300	1,000	12.0	do.....	No.
Bobr.....	1,300	1,000	12.0	do.....	No.

DESTROYERS.

2 boats.....	300	3,800	26.0	St. Petersburg.....	1906.
8 boats.....	350	3,800	26.0	Russia.....	

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NAVAL APPROPRIATION BILL.

APRIL 6, 1908 (Calendar day, April 8, 1908).—Committed to the Committee of the Whole House on the state of the Union and ordered to be printed.

Mr. Foss, from the Committee on Naval Affairs, submitted the following

REPORT.

[To accompany H. R. 20471.]

The Committee on Naval Affairs, to whom was referred so much of the President's annual message as relates to the naval establishment, together with the annual estimates of the Navy Department, submit herewith H. R. ———, making appropriations for the naval service for the fiscal year ending June 30, 1909, with the following statement:

The amount carried by this bill is \$103,967,518.43.

The estimates of the Department amounted to \$125,041,349.80.

The committee, after careful consideration of these estimates, made deductions to the amount of \$22,518,831.37, and under "Increase of the Navy" recommend an appropriation of \$1,000,000 toward the construction of submarine boats, and \$415,000, within the discretion of the Secretary of the Navy, for the construction of subsurface torpedo boats.

The following table gives a comparative statement of the appropriations for 1908 furnished by the Navy Department, the estimates for 1909, and the amounts recommended in this bill:

Naval Establishment.	Appropriated, 1908.	Estimates, 1909.	Recommended by this bill.
Pay of the Navy.....	\$21,000,000.00	\$26,086,201.00	\$27,274,201.00
Pay, miscellaneous.....	675,000.00	723,000.00	723,000.00
Contingent, Navy.....	65,000.00	65,000.00	65,000.00
Naval station, Island of Guam: Maintenance and care of lepers and other special patients.....	16,000.00	15,000.00	15,000.00
Bureau of Navigation.....	1,998,463.00	2,598,267.86	2,438,276.00
Bureau of Ordnance.....	11,715,406.75	21,414,606.75	10,744,772.75
Bureau of Equipment.....	7,528,028.00	10,236,978.00	9,424,849.00
Bureau of Yards and Docks.....	1,129,452.90	1,731,438.70	1,429,652.90
Public works, Bureau of Yards and Docks.....	3,124,940.00	12,054,822.00	3,170,400.00
Public works, Secretary of the Navy: Naval Academy.....	380,000.00	247,000.00	47,000.00
Public works, Bureau of Navigation: Naval training station, California.....	89,000.00	29,500.00	29,500.00
Naval training station, Rhode Island.....	58,912.00	140,890.00	139,890.00
Naval training station, Great Lakes.....	709,000.00	1,085,800.00	1,085,800.00
Public works, Bureau of Ordnance.....	370,280.00	571,466.00	162,360.00
Public works, Bureau of Equipment.....	10,000.00	10,000.00	10,000.00
Public works, Bureau of Medicine and Surgery.....	285,000.00	450,000.00	380,000.00
Bureau of Medicine and Surgery.....	405,800.00	425,000.00	385,000.00
Bureau of Supplies and Accounts.....	7,365,846.21	7,567,320.30	7,321,832.09

Naval Establishment.	Appropriated, 1908.	Estimates, 1909.	Recommended by this bill.
Bureau of Construction and Repair.....	\$8,102,824.25	\$8,502,824.25	\$8,202,824.25
Bureau of Steam Engineering.....	5,729,420.00	7,120,240.00	6,309,420.00
Naval Academy.....	440,728.36	458,582.86	475,728.36
Marine Corps:			
Public works.....			210,000.00
Paymaster.....	2,843,994.46	2,992,635.06	2,948,201.06
Quartermaster.....	2,417,069.00	3,508,971.00	2,816,999.00
Increase of the Navy:			
Construction and machinery.....	12,718,915.00	9,832,962.00	9,832,962.00
Armor and armament.....	10,000,000.00	7,000,000.00	7,000,000.00
Equipment.....	750,000.00	400,000.00	400,000.00
Subsurface or submarine boats.....	500,000.00		1,448,000.00
Total.....	100,308,602.98	125,041,349.86	108,967,518.43

The first paragraph of the bill relates to—

PAY OF THE NAVY.

Pay of the Navy.	Appropriated, 1908.	Estimates, 1909.	Recommended.
Pay of the Navy.....	\$21,000,000.00	\$26,086,201.00	\$27,274,201.00
Pay, miscellaneous.....	678,000.00	728,000.00	728,000.00
Contingent, Navy.....	65,000.00	65,000.00	65,000.00

The estimates as submitted in the Book of Estimates for the naval establishment called for an increase of 3,000 men, and later, at the hearings before the committee, it was demonstrated that an increase of 6,000 men in all would be necessary to man ships that are in commission and those about to be commissioned. The total estimate for pay for the 42,000 men and officers amounts to \$27,274,201. After careful consideration, the committee judged it to be unwise to reduce this estimate, in view of the fact that at the time of the hearings the enlisted force was recruited within 600 men of the full allowance, and for the past three or four months over 2,000 men have been recruited monthly. It is therefore the belief of the committee that the additional 6,000 men herein provided for will be shortly recruited, and the amount herein recommended will be necessary for pay.

The additional 6,000 men are recommended as it will be necessary to put the following ships in commission within the next few months: *California, Mississippi, Idaho, New Hampshire, South Dakota, North Carolina, Montana, Chester, Birmingham, and Salem*, and in addition 1,500 men are required to commission torpedo boats not now in commission.

The appropriation for "Pay, miscellaneous," has an apparent increase of \$48,000. This increase is due to a plan of consolidating all the charges pertaining to the Navy Department and its bureaus for ice, telephone rentals and tolls, telegrams, cablegrams, and postage, foreign and domestic, post-office box rentals, and express charges, so that they may be paid through one office instead of being paid through offices in the several bureaus, thereby preventing the multiplication of vouchers and duplication of work, which will result in economy. The various bureaus and appropriations from which these charges have been heretofore paid have been reduced in amounts equal to the amount necessary to pay these various charges. Therefore, while there is an apparent increase of \$48,000 in this appropriation, there has been a

corresponding reduction of \$48,000 in the appropriations from which these charges have been heretofore paid. Otherwise the appropriation "Pay, miscellaneous," remains the same as last year, while that for "Contingent, Navy," likewise remains the same.

BUREAU OF NAVIGATION.

The following table is a comparative statement of the appropriations for 1908, estimates for 1909, and the amounts recommended in this bill:

Bureau of Navigation.	Appropriated, 1908.	Estimates, 1909.	Recom- mended.
Transportation	\$400,000.00	\$550,870.00	\$475,000.00
Recruiting	121,940.00	130,000.00	130,000.00
Contingent	15,000.00	20,000.00	12,462.00
Gunnery exercises	120,000.00	140,000.00	130,000.00
Outfits on first enlistment	600,000.00	900,000.00	900,000.00
Maintenance of naval auxiliaries	500,000.00	571,540.00	525,000.00
Naval training station, California	50,000.00	61,000.00	60,652.00
Naval training station, Rhode Island	71,000.00	80,000.00	79,511.00
Naval training station, Great Lakes:			
Maintenance	20,000.00	30,000.00	29,860.00
Salaries clerical force (1 clerk, increase of \$200 submitted)	6,940.00	7,140.00	6,940.00
Naval War College	18,700.00	20,700.00	18,700.00
Naval Home, Philadelphia, Pa.	73,683.00	76,017.86	70,161.09
Total	1,996,663.00	2,586,267.86	2,438,276.00

The appropriation for transportation has been increased \$75,000, because the Navy has enlisted more men this year than in any previous year, and a great many of the recruits came from the interior and had to be transported to the various stations along the coast, and transportation has increased in cost greatly. The Navy Department has been unable to make satisfactory contracts with the railroads, as has previously been the case, and a great many of the recruits have been transported to the Pacific coast, thereby necessarily increasing the amount of this appropriation.

The appropriation for "Outfits on first enlistment" is increased to \$900,000 by reason of the increased cost of materials, which enter into the manufacture of the outfit and the increase in the number of enlistments, as heretofore stated. A deficiency of about \$300,000 is estimated under this appropriation for the present year.

The provision for the "Maintenance of naval auxiliaries" has been increased \$25,000; this increase is due to the fact that the wages of all the men on auxiliaries have been increased. There are 16 vessels included in the Naval Auxiliary Service, each one having a crew of from 25 to 40 men, and from 7 to 9 officers each.

The appropriation recommended for the naval training station in California has been increased from \$50,000 to \$60,652, an increase of \$10,652. The committee deemed this increase proper in view of the fact that a great many more men will be at this station on account of the fleet's being on the Pacific, and as recruits are enlisted from the interior they will be transported to this training station in California. The appropriation for the Rhode Island Naval Training Station has been increased by \$8,500 in order that many of the enlisted men who now do work not incident to the Naval Service about the station can be taken from this work and engaged in the work for which they

enlisted, and their places to be taken by others not in the Naval Service. The appropriation for the naval training station, Great Lakes, has likewise been increased \$9,860, for protection of the water front. The appropriation for the Naval War College is the same as last year, and there is a decrease of about \$3,500 in the Naval Home, Philadelphia.

BUREAU OF ORDNANCE.

The following table gives a comparative statement of the appropriations for 1908, estimates for 1909, and the amounts recommended in this bill:

Bureau of Ordnance.	Appropriated, 1908.	Estimates, 1909.	Recom- mended.
Ordnance and ordnance stores:			
Procuring, producing, preserving, and handling ordnance material	\$4,000,000.00	\$4,500,000.00	\$4,500,000.00
Ammunition and other supplies for new ships	750,000.00	1,284,000.00	2,750,000.00
Smokeless powder, purchase and manufacture of	500,000.00	650,000.00	650,000.00
Machine tools for navy-yard, Boston, Mass.	39,000.00		
Machine tools for navy-yard, New York, and magazine, Dover, N. J.		10,000.00	10,000.00
Machine tools for navy-yard, Mare Island, Cal.		50,000.00	50,000.00
Auxiliary hoist, building No. 111, navy-yard, Mare Island, Cal.		3,500.00	3,500.00
For Naval Gun Factory, Washington, D. C.:			
New and improved machinery for existing shops.	150,000.00	150,000.00	150,000.00
Machinery, cupolas, furnaces, etc., for proposed new foundry		122,000.00	
Remodeling 110-ton crane in north gun shop		30,000.00	
Machinery for locomotive house		12,000.00	
Mines for issue (for mine ship)		100,000.00	
Experimental work in the development of armor-piercing projectiles, fuzes, powders and high explosives, erosion tests, mounts, sights, etc.		200,000.00	
Advance base outfits		780,000.00	
Modernizing battery of Iowa	26,000.00		
Modernizing batteries of Monterey and Monadnock	20,000.00		
New turret sights for 4 monitors of Arkansas class	16,000.00		
New battery for the Brooklyn	177,200.00		
Modifying mounts and providing new sights	100,000.00	135,000.00	60,000.00
Replacing 8-pounder and 6-pounder guns and mounts and sights on board battle ships and armored cruisers by 3-inch 50 caliber guns, mounts, and sights		830,000.00	415,000.00
Purchase or manufacture of new ammunition-hoisting arrangements for all turret ships to and including the South Carolina and Michigan		2,112,000.00	
Replacing 8-inch guns on Maryland and class (20 guns)		502,000.00	250,000.00
Replacing 12-inch Mark III with Mark V guns on all battle ships (18 guns)		1,108,000.00	
Lining eight 12-inch Mark III guns		98,000.00	350,000.00
Replacing firing locks on 6-inch and 8-inch guns		45,000.00	45,000.00
Replacing small arms and automatic guns		1,195,500.00	
Fire-control instruments for battle ships, monitors, and cruisers	300,000.00	300,000.00	300,000.00
Reserve stock of mines and mine appliances	100,000.00	300,000.00	
Torpedoes and converting torpedo boats, etc.	300,000.00	1,150,000.00	650,000.00
Reserve ammunition	4,000,000.00	4,000,000.00	
Reserve guns for ships of the Navy	750,000.00	458,000.00	
Repairing, modernizing, and fitting with sights 4-inch and 5-inch guns and mounts not needed for vessels in commission		500,000.00	
Reserve torpedoes and appliances	250,000.00	500,000.00	300,000.00
Torpedo station, Newport, R. I.	70,000.00	75,000.00	70,000.00
Naval militia	60,000.00	100,000.00	100,000.00
Repairs, ordnance	30,000.00	50,000.00	30,000.00
Contingent, ordnance	20,000.00	20,000.00	14,066.00
Civil establishment	47,206.75	54,606.75	47,206.75
Total	11,715,406.75	21,414,606.75	10,744,772.75

The appropriation for "Ordnance and ordnance stores" has been increased by \$500,000.00. This might be termed the working appropriation of the Bureau. A large part of this appropriation is for target

practice, and owing to the fact that there will be in full or partial commission during the fiscal year of 1908-9 24 battle ships, 12 first-class cruisers, 66 second and third rate vessels, 60 torpedo vessels, and 15 auxiliaries, making a total of 177 vessels, an increase for target practice must be provided for. This appropriation includes all work at navy-yards, magazines, and naval proving grounds; all material and labor necessary for the care and preservation of ordnance stores on shore and afloat; furniture in ordnance buildings at navy-yards and in magazines and stations; labor, watchman, fuel, tools, and a great variety of miscellaneous items not otherwise provided for.

The appropriation for smokeless powder is increased \$150,000. The committee deemed it wise to allow this increase for the purpose of reworking deteriorated or useless powder at Indian Head powder factory. This process renders useless powder of great value at one-fourth the cost to manufacture the same quantity of new powder.

The appropriations "Ammunition and other supplies for new ships" and "Reserve ammunition" have been consolidated under the appropriation "Ammunition and other supplies for ships." Upon investigation the committee found that there had accumulated under the appropriation "Increase of the Navy; armor and armament" a large quantity of ammunition which was only available for use on new ships as they were placed in commission, and likewise a large quantity under the appropriation "Reserve ammunition" which could not be properly used on the ships in commission, but held as a reserve supply. As this resulted in a deterioration of this ammunition the committee deemed it wise that the ammunition accumulated under these two appropriations should be made available for issue and used before deterioration and replaced by new ammunition from time to time.

The appropriation for new and improved machinery at the Naval Gun Factory, Washington, D. C., is the same as last year.

The committee recommend the completion of the work of modifying the 4-inch 40-caliber mounts and the 5-inch 40-caliber mounts, but reduces the appropriation to \$60,000. The committee also recommend an appropriation of \$415,000 for replacing the 3-pounder and 6-pounder guns by 3-inch 50-caliber or larger guns, because of the increased effective range of the latest type of torpedo. These new guns give the ships protection from long-range torpedo discharge. The committee also recommend the replacing of 8-inch Mark V guns with 8-inch Mark VI guns on the *Maryland* and her class, and the relining and converting of 12-inch Mark III to Mark IV guns; also the replacing Mark IX two-firing locks with Mark X firing locks on 5 and 6 inch guns, in order that the batteries of the ships may be kept in the highest state of efficiency.

The appropriation for fire-control instruments for the ships is the same as last year.

The committee recommend an appropriation of \$650,000 for torpedoes and converting torpedo boats, in order that the torpedo boats may be brought up to the highest degree of efficiency for the discharge of the modern torpedo, and that the most modern torpedoes be either purchased or manufactured for the same. In addition thereto the committee recommends an appropriation of \$300,000 under the title "Torpedoes and appliances," the latter appropriation being intended mainly for the cost of manufacture of torpedoes and appliances at the

Government's torpedo station at Newport, R. I. The appropriation for the maintenance of the torpedo station at Newport is the same as last year.

The committee recommend an increase of the appropriation "Arming and equipping Naval Militia" to \$100,000, in order that this branch of the Naval Reserve of the United States might be more efficiently conducted.

BUREAU OF EQUIPMENT.

The following table gives a comparative statement of the appropriations for 1908, estimates for 1909, and the amounts carried in this bill:

Bureau of Equipment.	Appropriated, 1908.	Estimates, 1909.	Recommended.
Equipment of vessels.....	\$3,250,000.00	\$4,250,000.00	\$5,750,000.00
Coal and transportation.....	4,150,000.00	5,000,000.00	5,000,000.00
Contingent equipment.....	15,000.00	15,000.00	11,321.00
Ocean and lake surveys.....	75,000.00	75,000.00	75,000.00
Depots for coal.....		600,000.00	450,000.00
Chain-making machine.....		100,000.00	
Equipment machinery plants.....		150,000.00	100,000.00
Civil establishment, Bureau of Equipment.....	38,028.00	46,978.00	38,028.00
Total.....	7,528,028.00	10,236,978.00	9,424,349.00

The appropriation "Equipment of vessels" is increased \$500,000 over the appropriation of last year. This increase is due to the increased number of ships put in commission and the necessity of fitting them with fire-control apparatus, as well as wireless telegraphy. The greater part of the increase is due to items for electrical work. The Department is asking an increase of \$690,000 alone for the electrical branch. There are 75 vessels of the Navy fitted, or about to be fitted, with wireless, and it is estimated that the maintenance of the stations on board ships amounts to \$50,000 annually. In this appropriation is included an item of \$35,000 to cover necessary work to be done on vessels loaned or to be loaned to the States for the use of Naval Militia. In view of the increased number of ships in commission and about to be commissioned, the committee recommend the increase above stated.

The appropriation "Coal and transportation" is increased \$850,000. The committee recommend this increase because of the greater number of ships in commission and the policy of the Department to have fleet maneuvers on such a scale as to test the battle efficiency of the fleets. The principal causes of the increase are as follows:

- (a) Increase in the number of purposes for which the appropriation is applied.
- (b) Increase of the number of ships in commission.
- (c) Increase in size of ships and consequent coal consumption.
- (d) Increase in the first cost of coal at tide water.
- (e) Increase in freight rates due to transporting coal to greater distances than heretofore.

An appropriation of \$450,000 is recommended by the committee for "Depots for coal," which will enable the Secretary of the Navy to execute the provisions of section 1552 of the Revised Statutes, which amount is to be used for completing the coal depots at San Diego and California City Point, as there is a very pressing demand for coaling stations on that coast.

BUREAU OF YARDS AND DOCKS.

The following table gives a comparative statement of the appropriations for 1908, estimates for 1909, and the amounts carried in this bill:

Bureau of Yards and Docks.	Appropriated, 1908.	Estimates, 1909.	Recom- mended.
Maintenance, yards and docks.....	\$960,000.00	\$1,500,000.00	\$1,250,000.00
Contingent, Bureau of Yards and Docks.....	30,000.00	30,000.00	30,000.00
Civil establishment.....	149,652.90	201,438.70	149,652.90
Total.....	1,129,652.90	1,731,438.70	1,429,652.90

The committee recommend an increase of \$300,000 under the appropriation "Maintenance of Yards and Docks." This increase is due to the consolidation of the heat, light, and power plants in all the navy-yards, whereby it is believed a great reduction in cost will ultimately be realized. Another item in the increase is due to the fact that all the telephones installed in the various navy-yards are now placed under this Bureau instead of being under several, as heretofore. It is believed this will result in a great saving. Another item in the increase is due to a considerable increase in the cost of labor and material. There will likewise be an increase in cost on account of the change in the system of accounting, which will enable the Paymaster-General to give an exact account, and is an excellent system, whereby the value of stock on hand can be ascertained at any time.

PUBLIC WORKS, BUREAU OF YARDS AND DOCKS.

The following table gives a comparative statement of the appropriations for 1908, estimates for 1909, and the amounts carried in this bill:

Navy-yards and stations.	Appropriated, 1908.	Estimates, 1909.	Recom- mended.
Portsmouth, N. H.....	\$244,900.00	\$371,350.00	\$156,000.00
Boston, Mass.....	128,500.00	435,800.00	197,800.00
New York, N. Y.....	263,800.00	628,000.00	286,000.00
Philadelphia, Pa.....	125,500.00	993,225.00	190,000.00
Washington, D. C.....	85,000.00	985,047.00	48,000.00
Charleston, S. C.....	237,000.00	402,500.00	135,000.00
Norfolk, Va.....	365,500.00	1,260,500.00	505,000.00
Mare Island, Cal.....	248,500.00	786,800.00	211,000.00
Puget Sound, Wash.....	258,500.00	1,491,500.00	420,000.00
Pennacola, Fla.....	242,500.00	157,800.00	36,800.00
New Orleans, La.....	156,300.00	75,000.00	31,000.00
Tutula, Samoan Islands.....	6,000.00	15,000.00	15,000.00
Olongapo, P. I.....	90,000.00	556,500.00	100,000.00
Island of Guam.....	22,500.00	32,000.00	32,000.00
Cavite, P. I.....	13,000.00	58,700.00	59,700.00
Culebra.....	2,000.00	11,100.00	11,100.00
Newport, R. I.....	7,840.00	.....	.....
Key West, Fla.....	44,500.00	23,000.00	.....
Guantanamo, Cuba.....	.....	425,000.00	.....
Plans and specifications for public works.....	30,000.00	40,000.00	30,000.00
Repairs and preservation at navy-yard.....	500,000.00	750,000.00	600,000.00
Hawaii.....	3,100.00	6,000.00	6,000.00
Floating derrick.....	.....	200,000.00	100,000.00
Total.....	3,124,940.00	12,054,822.00	3,170,400.00

It will be seen from the above table that the estimates amounted to \$12,054,822; but after careful consideration of these estimates and hearings thereon the committee recommend this year a total of

\$3,170,400, which is a small increase over the appropriation of last year. The committee recommend the insertion of the following provision regarding the expenses of consolidation of power plants, etc.:

The Secretary of the Navy shall report to Congress at the commencement of the next regular session the amount of money expended on consolidation of power plants since the authorization for such consolidation was given, in 1904, such statement to be in detail for each navy-yard and to indicate amount expended for building and machinery separately; also to include a statement of the value of building and power plants at each navy-yard at the date of the above-noted authorization; also the total amounts appropriated for power houses and power-plant extensions which had not been utilized on April 27, 1904, the date of the authorization of the consolidations.

It will be noted that the committee recommend the expenditure of money in the navy-yards and stations principally toward the completion of the consolidation of the heat, light, and power plants, work which has already been begun and is well advanced.

PUBLIC WORKS UNDER THE SECRETARY OF THE NAVY.

The committee recommend an appropriation of \$62,000 under this appropriation, in which is included \$15,000 for maintenance and care of lepers at the naval station, Island of Guam. The remaining \$47,000 is for the enlargement of the water plant at the Naval Academy and other smaller items. The enlargement of this water plant at the Naval Academy will result in a total saving of from \$18,000 to \$20,000 a year in water bills.

PUBLIC WORKS, BUREAUS OF NAVIGATION, ORDNANCE, EQUIPMENT, MEDICINE AND SURGERY.

The following table gives a comparative statement of the appropriations for 1908, estimates for 1909, and the amounts recommended in this bill for public works under the Bureaus of Navigation, Ordnance, Equipment, and Medicine and Surgery:

Public works, Bureau of Navigation.	Appropriated, 1908.	Estimates, 1909.	Recommended.
Naval training station, California.....	\$39,000.00	\$29,500.00	\$29,500.00
Naval training station, Rhode Island.....	58,912.00	140,890.00	139,890.00
Naval training station, Great Lakes.....	700,000.00	1,095,600.00	1,095,600.00
Total	797,912.00	1,265,990.00	1,264,990.00
Public works, Bureau of Ordnance:			
Naval magazine, Dover, N. J.....	22,000.00		
Naval magazine, St. Julien's Creek.....	14,000.00	12,450.00	
Naval proving grounds, Indian Head, Md.....	34,130.00	314,780.00	14,760.00
Naval magazine, Fort Mifflin, Pa.....	8,200.00	22,100.00	14,600.00
Naval magazine, Mare Island, Cal.....	50,000.00	83,000.00	11,500.00
Torpedo station, Rhode Island.....	12,500.00	124,800.00	54,160.00
Magazine, Iona Island, N. Y.....	23,950.00	17,500.00	10,000.00
Magazine, Puget Sound, Wash.....	75,000.00	84,350.00	84,350.00
Pensacola, Fla.....		5,000.00	5,000.00
Olongapo, P. I.....		8,000.00	8,000.00
Total	369,780.00	571,460.00	152,360.00
Public works, Bureau of Equipment:			
Naval Observatory, grounds and roads.....	10,000.00	10,000.00	10,000.00
Public works, Bureau of Medicine and Surgery:			
Naval hospital, Pensacola, Fla.....	25,000.00	50,000.00	
Naval hospital, Puget Sound, Wash.....	75,000.00	75,000.00	75,000.00
Naval hospital, Washington, D. C.....	60,000.00		
Naval medical supply depot, Canacao.....	25,000.00		
Naval hospital, Norfolk, Va. (act of June 29, 1906).....	100,000.00	100,000.00	100,000.00
Naval hospital, Annapolis, Md.....		125,000.00	85,000.00
Naval hospital, Great Lakes.....		100,000.00	100,000.00
Total	285,000.00	450,000.00	360,000.00

PUBLIC WORKS, BUREAU OF NAVIGATION.

The committee recommend improvements to the amount of \$29,500 for the naval training station in California, \$139,890 for the naval training station in Rhode Island, and \$1,095,600 for the naval training station, Great Lakes. This appropriation for the Great Lakes naval training station completes the buildings in accordance with the provisions of the act of Congress, approved June 29, 1906, and will complete the electrical mains and conduits and pay the cost of inspection, architect's fee, and other necessary improvements to the station.

PUBLIC WORKS, BUREAU OF ORDNANCE.

The committee recommend minor improvements to the extent of \$14,760 at the naval proving ground, Indian Head, Md.; \$14,600, naval magazine, Fort Mifflin, Pa.; \$11,500, naval magazine, Mare Island, Cal.; \$54,150 at torpedo station, Newport, R. I.; \$10,000, naval magazine, New York Harbor; \$34,550, naval magazine, Puget Sound, Wash.; \$5,000, navy-yard, Pensacola, Fla., and \$8,000 for naval magazine, Olongapo, P. I., making a total of \$152,360, a reduction of over \$217,000 in the appropriation for last year.

PUBLIC WORKS, BUREAU OF EQUIPMENT.

An appropriation of \$10,000 is recommended, the same as last year, for the Naval Observatory.

PUBLIC WORKS, BUREAU OF MEDICINE AND SURGERY.

The committee recommend an appropriation of \$75,000 to complete the naval hospital at Puget Sound, as authorized by the naval act of March 2, 1907; also \$85,000 for the erection of new wards at the naval hospital, Annapolis, Md. The need of the contagious wards contemplated to be built by this appropriation has been demonstrated by an epidemic of diphtheria among the midshipmen at Annapolis in the past four months, when the patients had to be quartered in tents. One hundred thousand dollars is recommended to complete the appropriation for the naval hospital at Norfolk, Va., as authorized by the act of Congress approved June 29, 1906. A like appropriation is recommended for a naval hospital at Great Lakes, as at present there is no provision made for the sick at that station.

PUBLIC WORKS, MARINE CORPS.

The committee recommend an appropriation of \$210,000 for public works for the Marine Corps, a reduction of \$137,000 in last year's appropriation. Of this amount, \$70,000 is for the purchase of ground adjoining quartermaster's depot and building an addition to same, which is urgently requested. The remaining appropriation is divided among the navy-yards, Philadelphia, Pa., Norfolk, Va., Charleston, S. C., Boston, Mass., New York, N. Y., Olongapo, P. I., and Sitka, Alaska.

BUREAU OF MEDICINE AND SURGERY.

The following table gives a comparative statement of the appropriations for 1908, estimates for 1909, and the amounts carried in this bill:

Bureau of Medicine and Surgery.	Appropriated, 1908.	Estimates, 1909.	Recommended.
Medical department	\$256,000.00	\$270,000.00	\$270,000.00
Naval hospital fund	40,000.00	40,000.00	.....
Contingent, medicine and surgery	55,000.00	60,000.00	60,000.00
Transportation of remains	10,000.00	10,000.00	10,000.00
Repairs, medicine and surgery	45,000.00	45,000.00	45,000.00
Equipment, naval hospital, Guantanamo	900.00	.....	.....
Total	406,900.00	425,000.00	385,000.00

The appropriations, as will be seen from the above table, are practically the same as last year, there being an increase of \$20,000 due to the enlistment of additional men under the provision of the naval act of March 2, 1907.

BUREAU OF SUPPLIES AND ACCOUNTS.

The following table gives a comparative statement of the appropriations for 1908, estimates for 1909, and the amounts carried in this bill:

Bureau of Supplies and Accounts.	Appropriated, 1908.	Estimates, 1909.	Recommended.
Provisions, Navy	\$6,526,866.87	\$6,547,908.75	\$6,547,908.75
Contingent, supplies and accounts	175,000.00	170,000.00	170,000.00
Freight, supplies and accounts	500,000.00	500,000.00	500,000.00
Civil establishment, supplies and accounts	103,978.34	119,416.55	103,978.34
Total	7,305,845.21	7,337,320.30	7,321,882.09

The appropriation "Provisions, Navy" is practically the same as last year. The other appropriations of this Bureau remain the same as last year.

BUREAU OF CONSTRUCTION AND REPAIR.

The following table gives a comparative statement of the appropriations for 1908, estimates for 1909, and the amounts carried in this bill:

Bureau of Construction and Repair.	Appropriated, 1908.	Estimates, 1909.	Recommended.
Construction and repair of vessels	\$7,900,000.00	\$8,750,000.00	\$8,000,000.00
Improvement of construction plants:			
Navy-yard, Portsmouth, N. H.	15,000.00	15,000.00	15,000.00
Navy-yard, Boston, Mass.	20,000.00	20,000.00	20,000.00
Navy-yard, New York, N. Y.	20,000.00	20,000.00	20,000.00
Navy-yard, League Island, Pa.	15,000.00	15,000.00	15,000.00
Navy-yard, Norfolk, Va.	12,000.00	12,000.00	12,000.00
Navy-yard, Charleston, S. C.	20,000.00	20,000.00	20,000.00
Navy-yard, Pensacola, Fla.	15,000.00	15,000.00	15,000.00
Navy-yard, Mare Island, Cal.	15,000.00	15,000.00	15,000.00
Navy-yard, Puget Sound, Wash.	20,000.00	20,000.00	20,000.00
Naval station, New Orleans, La.	10,000.00	10,000.00	10,000.00
2 scagoing tugs .....	.....	300,000.00	.....
Civil establishment	40,824.25	40,824.25	40,824.25
Total	8,102,824.25	9,252,824.25	8,202,824.25

The appropriations for this Bureau are substantially the same as last year, an increase of \$100,000 being recommended under the appropriation "Construction and repair of vessels," to be used for vessels loaned to the Naval Militia of the various States.

BUREAU OF STEAM ENGINEERING.

The following table gives a comparative statement of the appropriations for 1908, estimates for 1909, and the amounts carried in this bill:

Bureau of steam engineering.	Appropriated, 1908.	Estimates, 1909.	Recom- mended.
Steam machinery:			
For completion, repairing, and preservation of machinery, boilers, etc.	\$3,500,000.00	\$4,065,000.00	\$3,750,000.00
For purchase, handling, and preservation of material, stores, etc.	2,000,000.00	2,500,000.00	2,250,000.00
For incidental expenses for naval vessels and yards	6,000.00	6,000.00	6,000.00
Improvement of steam engineering plant:			
Portsmouth, N. H., Navy-Yard	30,000.00	75,000.00	30,000.00
Boston, Mass., Navy-Yard		25,000.00	25,000.00
New York, N. Y., Navy-Yard	40,000.00	40,000.00	40,000.00
Philadelphia, Pa., Navy-Yard	25,000.00	25,000.00	25,000.00
Norfolk, Va., Navy-Yard	25,000.00	40,000.00	25,000.00
Pensacola, Fla., Navy-Yard	10,000.00	30,000.00	10,000.00
Mare Island, Cal., Navy-Yard		75,000.00	25,000.00
Puget Sound, Wash., Navy-Yard		50,000.00	25,000.00
New Orleans, La., naval station		10,000.00	10,000.00
Guantanamo, Cuba, naval station		10,000.00	
Cavite, P. I., naval station	25,000.00	15,000.00	15,000.00
Olongapo, P. I., naval station	20,000.00	25,000.00	25,000.00
Engineering experimental station, United States Naval Academy, Annapolis, Md.:			
Salaries	5,520.00	12,240.00	5,520.00
For civilian assistant to director			
For 1 chemist			
For 1 skilled mechanic			
For 1 electrical mechanic			
Contingent		1,000.00	
Experimental work at engineering laboratory	25,000.00	30,000.00	25,000.00
Buildings		50,000.00	
1 house for quarters for engineering director (officer)			
1 house for quarters for assistant to director (officer)			
1 house for quarters for assistant to director (civilian)			
Civil establishment:			
At all navy-yards and stations	17,900.00	36,000.00	17,900.00
Total	5,729,420.00	7,120,240.00	6,309,420.00

The appropriations for this Bureau are practically the same as last year with the exception of an increase of \$250,000 under "Steam machinery" and \$250,000 for the preservation of machinery tools in navy-yards and stations and the handling and preservation of all machinery stores and running the yard engines. This increase is due to the fact that the Navy is larger and more ships are in commission. Also \$65,000 is recommended for the care of the machinery of the vessels loaned to the Naval Militia of the various States.

NAVAL ACADEMY, CIVIL ESTABLISHMENT.

The following table gives a comparative statement of the appropriations for 1908, estimates for 1909, and the amounts carried in this bill:

Naval Academy.	Appropriated, 1908.	Estimates, 1909.	Recom- mended.
Pay of professors and others.....	\$133,408.26	\$142,462.76	\$134,608.26
Pay of watchmen, mechanics, and others.....	103,000.00	125,000.00	125,000.00
Pay of steam employees.....	20,343.06	20,343.06	20,343.06
Special course athletics.....	3,000.00	5,000.00	5,000.00
Repairs.....	30,000.00	30,000.00	30,000.00
Heating and lighting.....	50,000.00	60,000.00	60,000.00
Contingent.....	103,977.04	100,777.04	100,777.04
Total.....	440,728.36	488,582.86	475,728.36

It will be seen from the above table that the appropriations are practically the same as last year. An increase of \$25,000 under "Pay of watchmen, mechanics, and others" is recommended first, for increased labor in the power house, and second, increased labor to the care of buildings. This increase is due to the number of laborers and not to the increase of pay for same.

MARINE CORPS.

The Marine Corps is a military branch of the naval service and consists to-day of 278 officers and 8,771 men, and is fully recruited.

The following table shows the appropriations for 1908, estimates for 1909, and the amounts carried in this bill:

Marine Corps.	Appropriated, 1908.	Estimates, 1909.	Recom- mended.
Pay, officers active list.....	\$598,140.00	\$609,713.00	\$609,713.00
Pay, officers retired list.....	115,000.00	115,000.00	115,000.00
Pay, enlisted men active list.....	1,883,555.20	1,954,084.00	1,935,000.00
Pay, enlisted men retired list.....	67,422.00	84,469.00	84,469.00
Undrawn clothing.....	85,569.98	98,707.80	98,707.80
Mileage.....	40,000.00	45,000.00	45,000.00
Hire and commutation of quarters.....	20,000.00	30,000.00	30,000.00
Civil force.....	30,311.28	55,711.28	30,311.28
Total "Pay, Marine Corps".....	2,843,998.46	2,972,685.08	2,948,201.08
Quartermaster's department:			
Provisions.....	548,503.00	648,543.00	648,543.00
Clothing.....	600,092.00	650,920.00	650,920.00
Fuel.....	80,000.00	110,000.00	100,000.00
Military stores.....	225,782.00	250,782.00	230,000.00
Transportation and recruiting.....	186,000.00	236,000.00	236,000.00
Repairs of barracks.....	78,836.00	88,836.00	88,836.00
Forage.....	17,700.00	17,700.00	17,700.00
Hire or commutation of quarters.....	51,548.00	60,000.00	60,000.00
Contingent.....	280,800.00	330,800.00	285,000.00
Total quartermaster's department.....	2,070,089.00	2,814,971.00	2,316,999.00
Total Marine Corps, exclusive of public works..	4,914,087.46	5,787,656.08	5,265,200.08

The small increases under "Pay, Marine Corps," is because a greater proportion of officers are serving abroad, and a great proportion of officers became entitled to longevity pay during the past year. The increase of \$13,000 in "Undrawn clothing," is due to the expected discharge of 2,000 men upon the expiration of their enlistment, and they are to be paid the money value of the clothing they have saved.

The increase of \$100,000 in the appropriation "Provisions, Marine Corps," is due to the increased cost of 16 per cent in the cost of rations. An increase of \$50,000 is recommended under "Clothing, Marine Corps," because of the fact that about 1,000 men are serving in Cuba, in the field, at such work as is particularly destructive to their uniforms. An increase of \$20,000 under "Fuel, Marine Corps," is necessitated by the increase due to the Army act which increased the number of rooms to which officers are entitled, and, therefore, the amount of fuel that they consume. The increase in "Transportation and recruiting, Marine Corps," is due to the fact that the cost of transportation of the military has increased considerably, as the Department is unable to make competitive contracts with the railroads. The increase under "Repairs of barracks," is due to the repairs to the barracks on the Isthmus of Panama being paid from this appropriation, where the Isthmian Canal Commission has formerly paid for same. The other appropriations for the Marine Corps remain practically the same as last year.

INCREASE OF THE NAVY.

The following table shows the amounts appropriated for 1908, estimates for 1909, and the amounts carried in this bill:

Increase of the Navy.	Appropriated, 1908.	Estimates, 1909.	Recom- mended.
Bureaus of Construction and Repair and Steam Engineering:			
Increase of the Navy, construction and machinery.....	\$12,713,915.00	\$9,832,962.00	\$9,832,962.00
Increase of the Navy, armor and armament.....	10,000,000.00	7,000,000.00	7,000,000.00
Increase of the Navy, equipment.....	750,000.00	400,000.00	400,000.00
Increase of the Navy, subsurface or submarine boats.....	500,000.00	.....	1,445,000.00
Total.....	23,963,915.00	17,232,962.00	18,677,962.00

The following table shows the degree of completion of our ships now under construction:

Vessels building for the increase of the Navy are listed in the following tables, which include all those authorized by law, with the exception of one gunboat, for the Great Lakes, authorized in 1898, and submarine boats appropriated for by the last Congress.

Vessels building under contract.

Name.	By whom building.	Estimate of—		Contract time.	Expiration of contract time.
		Degree of completion July 1, 1907.	Probable date of completion.		
BATTLE SHIPS.		Per cent.		Months.	
Mississippi	Wm. Cramp & Sons	88.96	Dec. 7, 1907	38	Mar. 25, 1907
Idaho	do.....	81.98	Feb. 10, 1908	40	May 25, 1907
New Hampshire	New York Shipbuilding Co ..	75.40	Aug. 10, 1908	38	Feb. 27, 1908
Montanan	do.....	19.40	Mar. 8, 1910	40	Nov. 20, 1909
North Carolina	Wm. Cramp & Sons	17.48	Feb. 5, 1910	41	Dec. 21, 1909
Delaware	Newport News Shipbuilding Co.		Aug. 6, 1910	36	Aug. 6, 1910
North Dakota	Fore River Shipbuilding Co.		June 21, 1910	34½	June 21, 1910

Vessels building under contract—Continued.

Name.	By whom building.	Estimate of—		Contract time.	Expiration of contract time.
		Degree of completion July 1, 1907.	Probable date of completion.		
ARMORED CRUISERS.					
California	Union Iron Works	<i>Per cent.</i> 99.90	^a May 18, 1907	<i>Months.</i> 36	Jan. 10, 1908
South Dakota	do	97.50	^a Oct. 2, 1907	36	Do.
North Carolina	Newport News Shipbuilding Co.	83.77	Mar. 12, 1908	36	Jan. 3, 1908
Montana	do	76.96	May 27, 1908	36	Do.
SCOUT CRUISERS.					
Chester	Bath Iron Works	81.26	July 10, 1908	36	May 4, 1908
Birmingham	Fore River Shipbuilding Co.	81.60	Mar. 12, 1908	30	Nov. 17, 1907
Salem	do	80.80	June 23, 1908	34	Mar. 17, 1908
TORPEDO-BOAT DESTROYERS.					
No. 17	Wm. Cramp & Sons		Oct. 10, 1909	24	Oct. 10, 1909
No. 18	do		do	24	Do.
No. 19	New York Shipbuilding Co.		Sept. 28, 1909	24	Sept. 28, 1909
No. 20	Bath Iron Works		do	24	Do.
No. 21	do		do	24	Do.
SUBMARINE TORPEDO BOATS.					
Octopus	Fore River Shipbuilding Co.	97.00	Nov. 3, 1907	18	Sept. 6, 1907
Viper	do	95.00	^a Oct. 16, 1907	18	Do.
Cuttlefish	do	97.00	do	18	Sept. 18, 1907
Tarantula	do	96.00	Nov. 3, 1907	18	Do.

^a Delivered to Government.*Vessels building at navy-yards.*

Name.	Where building.	Estimate of—		Con- struc- tional period.	Expiration of construc- tional period.
		Degree of completion, July 1, 1907.	Probable date of completion.		
COLLIERS.					
Vestal	Navy-yard, New York, N. Y. .	Per cent. 30.70	Aug. 1, 1908	Months.	.....
Prometheus	Navy-yard, Mare Island, Cal.	.70	.....	.....	.....
SEAGOING TUGS.					
Patapasco	Navy-yard, Portsmouth, N. H.	16.00	Jan. 1, 1908	.....	.....
Patuxent	Navy-yard, Norfolk, Va.	9.00	Sept. 30, 1908	.....	.....

The amount necessary to be appropriated to pay for the work now progressing and contracted during the next fiscal year is \$17,232,962.

PREVIOUS NAVAL PROGRAMMES.

List, by years and sessions of Congress, of naval vessels authorized by acts of Congress from 1883 to 1907, inclusive.

1883 (47TH, 2D)—Page 7.

Name.	Type.	Displacement.	Speed.	Mean draft.	Contract price of hull and machinery.
		<i>Tons.</i>	<i>Knots.</i>	<i>Fl.</i> <i>In.</i>	
Atlanta.....	Protected cruiser.....	3,000	15.60	16 10	\$617,000
Boston.....	do.....	3,035	15.60	17 0	619,000
Chicago.....	do.....	5,000	18	20 4	889,000
Dolphin.....	Dispatch boat.....	1,486	15.50	14 3	315,000
Total.....		12,521			2,440,000

1885 (48TH, 2D)—Page 33.

Charleston (destroyed).....	Protected cruiser.....	3,370	18.2	18 7	\$1,017,500
Newark.....	do.....	4,098	19	18 9	1,248,000
Petrel.....	Gunboat.....	892	11.79	11 7	247,000
Yorktown.....	do.....	1,710	16.14	14 0	455,000
Total.....		10,070			2,967,500

1886 (49TH, 1ST)—Page 45.

Amphitrite.....	Monitor.....	3,990	10.5	14 6	
Baltimore.....	Protected cruiser.....	4,413	20.096	20 0	\$1,325,000
Cushing.....	Torpedo boat.....	106	22.5	4 10	159,400
Maine (destroyed) a.....	Second-class battle ship.....	6,682	17.45	21 6	2,500,000
Monadnock.....	Monitor.....	4,005	12	14 7	
Furitan.....	do.....	6,060	12.4	18 0	
Terror.....	do.....	3,990	10.5	14 6	
Texas a.....	Second-class battle ship.....	6,315	17.8	22 6	2,500,000
Vesuvius.....	Dynamite-gun cruiser.....	929	21.42	10 7	350,000
Total.....		36,489			6,834,400

1887 (49TH, 2D)—Page 62.

Bennington.....	Gunboat.....	1,710	17.5	11 0	\$190,000
Concord.....	do.....	1,710	16.8	14 0	490,000
Miantonomoh.....	Monitor.....	3,990	10.5	14 6	
Monterey.....	do.....	4,084	13.6	14 10	1,628,950
Philadelphia.....	Protected cruiser.....	4,410	19.678	19 6	1,350,000
San Francisco.....	do.....	4,098	19.525	18 9	1,428,000
Total.....		20,002			5,386,950

1888 (50TH, 1ST)—Page 81.

Bancroft.....	Gunboat.....	839	14.37	12 2	\$250,000
Cincinnati.....	Protected cruiser.....	3,213	19	18 0	1,100,000
Detroit.....	Unprotected cruiser.....	2,089	18.71	14 7	612,500
Marblehead.....	do.....	2,089	18.44	14 7	674,000
Montgomery.....	do.....	2,089	19.05	14 7	674,000
New York.....	Armored cruiser.....	8,200	21	23 3	2,985,000
Olympia.....	Protected cruiser.....	5,870	21.686	21 6	1,796,000
Raleigh a.....	do.....	3,213	19	18 0	1,100,000
Total.....		27,602			9,191,500

a Built in Government yard.

b Maximum cost.

List, by years and sessions of Congress, of naval vessels authorized by acts of Congress from 1883 to 1907, inclusive—Continued.

1889 (50TH, 2D)—Page 99.

Name.	Type.	Displacement.	Speed.	Mean draft.	Contract price of hull and machinery.
		<i>Tons.</i>	<i>Knots.</i>	<i>Ft. in.</i>	
Castine.....	Gunboat.....	1,177	16.032	12 0	\$318,500
Katahdin.....	Ram.....	2,155	16.11	15 0	93,000
Machias.....	Gunboat.....	1,177	15.46	12 0	318,500
Total.....		4,509			1,567,000

1890 (51ST, 1ST)—Page 119.

Columbia.....	Protected cruiser.....	7,375	22.8	22 6	\$2,725,000
Ericsson.....	Torpedo boat.....	120	24	4 9	115,000
Indiana.....	First-class battle ship.....	10,288	15.547	24 0	3,065,000
Massachusetts.....	do.....	10,288	16.21	24 0	3,065,000
Oregon.....	do.....	10,288	16.79	24 0	3,222,000
Total.....		38,359			12,187,000

1891 (51ST, 2D)—Page 138.

Minneapolis.....	Protected cruiser.....	7,375	23.073	22 6	\$2,630,000
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1892 (52D, 1ST)—Page 157.

Brooklyn.....	Armored cruiser.....	9,215	21.91	24 0	\$2,986,000
Iowa.....	First-class battle ship.....	11,340	17.09	24 0	3,010,000
Total.....		20,555			5,996,000

1893 (52D, 2D)—Page 176.

Helena.....	Gunboat.....	1,597	15.50	9 0	\$280,000
Nashville.....	do.....	1,371	16.30	11 0	180,000
Plunger *.....	Submarine torpedo boat.....				150,000
Wilmington.....	Gunboat.....	1,397	15.08	9 0	280,000
Total.....		4,165			890,000

1894 (53D, 2D)—Page 196.

Foote.....	Torpedo boat.....	142	24.534	5 0	\$97,500
Rodgers.....	do.....	142	24.49	5 0	97,500
Winslow.....	do.....	142	24.82	5 0	97,500
Total.....		426			292,500

1895 (53D, 53D)—Page 214.

Annapolis.....	Gunboat.....	1,060	13.17	12 5	\$227,700
Dupont.....	Torpedo boat.....	165	28.53	4 8	144,000
Kearsarge.....	First-class battle ship.....	11,540	16.816	23 6	2,250,000
Kentucky.....	do.....	11,540	16.897	23 6	2,250,000
Marietta.....	Gunboat.....	1,000	13.02	12 0	223,000
Newport.....	do.....	1,000	12.29	12 0	229,400
Porter.....	Torpedo boat.....	165	28.630	4 8	144,000
Princeton.....	Gunboat.....	1,100		12 9½	230,000
Rowan.....	Torpedo boat.....	182	27.074	5 11½	160,000
Vicksburg.....	Gunboat.....	1,000	12.71	12 0	229,400
Wheeling.....	do.....	1,000	12.88	12 0	219,000
Total.....		29,752			6,306,500

* See history submarine boat legislation.

List, by years and sessions of Congress, of naval vessels authorized by acts of Congress from 1883 to 1907, inclusive—Continued.

1906 (54TH, 1ST)—Page 237.

Name.	Type.	Displacement.	Speed.	Mean draft.	Contract price of hull and machinery.
		<i>Tons.</i>	<i>Knots.</i>	<i>Ft. in.</i>	
Alabama	First-class battle ship	11,565	17.103	23 6	\$2,650,000
Craven	Torpedo boat	146.4	30.5	4 7½	181,000
Dahlgren	Torpedo boat	116.4	30.5	4 7½	194,000
Davis	Torpedo boat	151	23.41	5 10	81,546
Farragut	Torpedo boat	279	30.13	6 0	227,500
Fox	Torpedo boat	154	23.13	5 10	81,546
Gwin	Torpedo boat	45.78	20.88	3 3	39,000
Illinois	First-class battle ship	11,565	17.419	23 6	2,596,000
McKee	Torpedo boat	65	19.82	4 3	45,000
Mackenzie	do	65	20.11	4 3	48,500
Morris	do	104.75	24	4 0½	85,000
Talbot	do	46.5	21.15	3 3¼	39,000
Wisconsin	First-class battle ship	11,653	17.174	23 8½	2,674,950
Total		35,989.83			8,956,042

1897 (55TH, 1ST)—Page 258.

Bailey	Torpedo boat	290	30.198	6 10	\$210,000
Chesapeake	Training ship	1,175		16 6	112,600
Goldsborough	Torpedo boat	247.5	30	5 0	214,500
Stringham	do	340	30	6 6	236,000
Total		2,042.5			773,100

1898 (55TH, 2D)—Page 281.

Arkansas	Monitor	3,235	11.50	12 6	\$960,000
Bagley	Torpedo boat	175	29.2	4 11½	161,000
Bainbridge	Torpedo-boat destroyer	420	29	6 6	283,000
Barney	Torpedo boat	175	29.1	4 11½	161,000
Barry	Torpedo-boat destroyer	420	29	6 6	283,000
Biddle	Torpedo boat	175	28	4 11½	161,000
Blakely	do	200	26	5 10½	659,400
Chauncey	Torpedo-boat destroyer	420	29	6 6	283,000
Dale	do	420	28	6 6	260,000
Decatur	do	420	28	6 6	260,000
DeLong	Torpedo boat	200	26	5 10½	159,400
Florida	Monitor	3,235	11.50	12 6	925,000
Gunboat No. 16	Gunboat	537			260,000
Hopkins	Torpedo-boat destroyer	408	29	6 0	291,000
Hull	do	408	29	6 0	291,000
Lawrence	do	402	30	6 6½	281,000
Macdonough	do	402	30	6 6½	281,000
Maine	First-class battle ship	12,300	18	23 6	2,885,000
Missouri	do	12,240	18	23 6	2,885,000
Nevada	Monitor	3,238	11.50	12 6	962,000
Nicholson	Torpedo boat	174	26	4 6	165,000
O'Brien	do	174	26	4 6	165,000
Ohio	First-class battle ship	12,440	18	23 6	2,899,000
Paul Jones	Torpedo-boat destroyer	420	29	6 6	285,000
Perry	do	420	29	6 6	285,000
Preble	do	420	29	6 6	285,000
Shubrick	Torpedo boat	200	25	5 2	129,750
Stewart	Torpedo-boat destroyer	420	29	6 6	285,000
Stockton	Torpedo boat	200	21.75	5 2	129,750
Thornton	do	200	26	5 2	129,750
Tingey	do	165	26	4 8	168,000
Truxton	Torpedo-boat destroyer	423	30	6 0	286,000
Whipple	do	423	30	6 0	286,000
Wilkes	Torpedo boat	165	26.50	4 8	146,000
Worden	Torpedo-boat destroyer	436	30	6 0	286,000
Wyoming	Monitor	3,218	11.50	12 6	975,000
Total		59,335			19,494,050

List, by years and sessions of Congress, of naval vessels authorized by acts of Congress from 1883 to 1907, inclusive—Continued.

1899 (55TH, 3D)—Page 306.

Name.	Type.	Displacement.	Speed.	Mean draft.	Contract price of hull and machinery.
		Tons.	Knots.	Ft. in.	
California	Armored cruiser	13,680	22	24 1	\$3,800,000
Chattanooga	Protected cruiser	3,200	16.5	15 9	1,009,866
Cleveland	do	3,200	16.5	15 9½	1,041,688
Denver	do	3,200	16.5	15 9	1,080,000
Des Moines	do	3,200	16.5	15 9	1,085,000
Galveston	do	3,200	16.5	15 9	1,027,000
Georgia	First-class battle ship	14,948	19	29 9	3,590,000
Nebraska	do	14,948	19	23 9	3,738,600
Pennsylvania	Armored cruiser	13,680	22	24 1	3,890,000
Tacoma	Protected cruiser	3,200	16.5	15 9	1,041,800
Virginia	First-class battle ship	14,948	19	23 9	3,590,000
West Virginia	Armored cruiser	13,680	22	24 1	3,885,000
Total		106,034			28,784,116

1900 (56TH, 1ST)—Page 332.

Adder*	Submarine torpedo boat				\$170,000
Charleston	Protected cruiser	9,700	22	22 6	2,740,000
Colorado	Armored cruiser	13,680	22	24 1	3,780,000
Grampus*	Submarine torpedo boat				170,000
Holland*	do				150,000
Maryland	Armored cruiser	13,680	22	24 1	3,775,000
Milwaukee	Protected cruiser	9,700	22	22 6	2,835,000
Moccasin*	Submarine torpedo boat				170,000
New Jersey	First-class battle ship	14,948	19	23 9	3,405,000
Osage*	Submarine torpedo boat				170,000
Porpoise*	do				170,000
Rhode Island	First-class battle ship	14,948	19	23 9	3,405,000
St. Louis	Protected cruiser	9,700	22	22 6	2,740,000
Shark*	Submarine torpedo boat				170,000
South Dakota	Armored cruiser	13,680	22	24 1	3,750,000
Total		100,036			27,590,000

1902 (57TH, 1ST)—Page 396.

Connecticut ^b	First-class battle ship	16,000	18	24 6	\$4,212,000
Dubuque	Gunboat	1,050	12.50	12 3	295,000
Louisiana	First-class battle ship	16,000	18	23 9	3,990,000
Paducah	Gunboat	1,100	12	12 9½	356,000
Tennessee	Armored cruiser	14,500	22	25 0	4,035,000
Washington	do	14,500	22	25 0	4,035,000
Total		63,150			16,922,000

1903 (57TH, 2D)—Page 427.

Cumberland ^b	Training ship	1,800		16 5½	\$370,000
Idaho	First-class battle ship	13,000	17	24 8	2,999,500
Intrepid	Training ship	1,800		13 5½	370,000
Kansas	First-class battle ship	16,000	18	24 6	4,165,000
Minnesota	do	16,000	18	24 6	4,110,000
Mississippi	do	13,000	17	24 8	2,999,500
Vermont	do	16,000	18	24 6	4,179,000
Total		77,600			19,193,000

* See history submarine boat legislation.
 † Purchase price.

^b Built in Government yard.
 ‡ Maximum cost.

List, by years and sessions of Congress, of naval vessels authorized by acts of Congress from 1883 to 1907, inclusive—Continued.

1904 (58TH, 2D)—Page 458.

Name.	Type.	Displacement.	Speed.	Mean draft.	Contract price of hull and machinery.
		<i>Tons.</i>	<i>Knots.</i>	<i>Ft. in.</i>	
New Hampshire.....	First-class battle ship.....	16,000	18	21 6	\$3,748,000
North Carolina.....	Armored cruiser.....	14,300	22	25 0	a 4,400,000
Montana.....	do.....	11,340	22	25 0	a 4,400,000
Chester.....	Scout cruiser.....	3,750	21	.....	a 1,900,000
Birmingham.....	do.....	3,750	21	.....	a 1,900,000
Salem.....	do.....	3,750	21	.....	a 1,800,000
Vestal.....	Fleet collier.....	.....	.....	.....	a 1,250,000
Prometheus.....	do.....	.....	.....	.....	a 1,250,000
Total.....	.....	56,250	.....	.....	20,648,000

1905 (58TH, 3D)—Page 488.

South Carolina.....	First-class battle ship.....	16,000	18.5	24 6	\$3,540,000
Michigan.....	do.....	16,000	18.5	24 6	3,585,000
Total.....	.....	32,000	.....	.....	7,125,000

1906 (59TH, 1ST)—Page 523.

Delaware.....	First-class battle ship.....	20,000	21	26 11	\$3,987,000
No. 17.....	Torpedo-boat destroyer.....	700	28	8	b 585,000
No. 18.....	do.....	700	28	8	b 585,000
No. 19.....	do.....	700	23	8	b 645,000
	Submarine or subsurface torpedo boats (not exceeding \$1,000,000; \$500,000 appropriated).	.....	.....	.....	500,000
Total.....	.....	22,100	.....	.....	6,302,000

1907 (59TH, 2D)—Page 537.

North Dakota.....	First-class battle ship.....	20,000.00	21	26 11	\$4,377,000
No. 20.....	Torpedo-boat destroyer.....	700.00	28	8	624,000
No. 21.....	do.....	700.00	28	8	624,000
	Limit of contract for submarine and subsurface torpedo boats, act June 29, 1906, increased to \$3,000,000; \$500,000 appropriated.	.....	.....	.....	500,000
Total.....	.....	21,400.00	.....	.....	6,125,000
Grand total.....	.....	754,762.83	.....	.....	.....

a Maximum cost.

b Limit of cost increased from \$750,000 to \$800,000, act Mar. 2, 1907.

c Limit of cost increased to \$3,000,000, act Mar. 2, 1907.

NAVAL PROGRAMME.

The committee recommend this year the following:

That, for the purpose of further increasing the naval establishment of the United States, the President is hereby authorized to have constructed, by contract or in navy-yards, as hereinafter provided, two first-class battle ships, to cost, exclusive of armor and armament, not exceeding six million dollars each, similar in all essential characteristics to the battle ship authorized by the act making appropriations for the naval service for the fiscal year ending June thirtieth, nineteen hundred and eight; ten torpedo-boat destroyers, to have the highest practicable speed, and to cost, exclusive of armament, not to exceed eight hundred thousand dollars each.

The committee further recommend the following provision:

That the Secretary of the Navy is hereby authorized and directed to contract for eight submarine torpedo boats, in an amount not exceeding in the aggregate three million five hundred thousand dollars, and the sum of one million dollars is hereby appropriated toward said purpose, and to remain available until expended: *Provided*, That all such boats shall be of the same type heretofore determined to be superior as the result of the competitive tests held under the provisions of the naval appropriation acts approved June twenty-ninth, nineteen hundred and six, and March second, nineteen hundred and seven, unless on or before October first, nineteen hundred and eight, a submarine torpedo boat of a different type and of full size for naval warfare shall have been constructed and submitted to the Navy Department for like trial, and by such like trial by said Department demonstrated to be not inferior to the best submarine torpedo boat in the competition above referred to.

The committee further recommend the following provision:

That the Secretary of the Navy is hereby authorized, in his discretion, to contract for or purchase one destroyer or torpedo boat of the type known as subsurface, semisubmerged (or the like), the essential feature of which is to have during its operation some portion of the hull or superstructure always on or above the surface, such vessel to cost not to exceed four hundred thousand dollars and to have a speed of not less than twenty-two knots; also two small vessels of like type, having a speed of not less than sixteen knots, and to cost not to exceed twenty-two thousand five hundred dollars each: *Provided*, That before any vessel of the type provided for in this paragraph shall be purchased or contracted for a vessel of such type shall have been constructed complete and of full size for naval warfare and submitted to the Navy Department for such trial and tests as the Secretary of the Navy may in his discretion prescribe, and as the result of such tests be demonstrated to have fulfilled all the reasonable requirement of naval warfare for a vessel of its class; and for these vessels the sum of four hundred and forty-five thousand dollars is hereby appropriated, to be available until expended.

FOREIGN NAVAL PROGRAMMES.

NAVY DEPARTMENT,
Washington, February 4, 1908.

SIR: I have the honor to submit herewith information compiled at your request by the Office of Naval Intelligence concerning building programmes of the principal naval powers.

Very respectfully,

TRUMAN H. NEWBERRY,
Acting Secretary.

HON. GEORGE EDMUND FOSS,
Chairman of Committee on Naval Affairs,
House of Representatives.

OFFICE OF NAVAL INTELLIGENCE,
February 1, 1908.

NAVAL BUILDING PROGRAMMES.

The building programmes of the principal foreign powers for the year 1907 are described in the Annual Report of the Secretary of the Navy for the fiscal year 1907, page 3, et seq.

FOREIGN SHIPBUILDING PROGRAMMES.

In foreign shipbuilding programmes of the current year the characteristic feature of all is the presence of battle ships of heavy displacement, destroyers, and submarines, and, with the German excepted, the omission of armored cruisers. The speed and displacement of battle ships are increasing in all countries, and there is a marked

tendency toward a reduction in the number of calibers of guns composing the armament. The armament of the latest type of battle ships is composed of heavy turret guns and of smaller guns intended for defense or against torpedo craft. The latter, moreover, are increasing in caliber to such a degree that in some ships of recent design they are of the same calibers that were used but a few years ago for the intermediate battery.

The absence of armored cruisers from the new programmes is worthy of note and may be ascribed to the tendency toward the merging of the battle ship and armored cruiser types. With the increase in size and power of the armored cruiser the distinction between that type and the battle ship has become less and less clearly marked, until in the English *Invincible* class it has almost disappeared. Having reached a limit in armored-cruiser construction in the *Invincible* class, England is about to return to a smaller type of cruisers for commerce protection and police duties, and it has been announced in Parliament that "the further construction of large armored cruisers is not, in the judgment of the Admiralty, immediately required. Attention will, however, be directed in the immediate future to the development of the 'scout' class and to the evolution of a new type of cruiser to take the place of the obsolescent *Edgar* class." [It should be noted, however, that England already possesses a large number (32) of armored cruisers.] The development of the scout is also a subject that is engaging the attention of other foreign admiralities. Torpedo boats of less than 200 tons no longer find place in recent programmes. Several nations are building torpedo boats of 200 to 300 tons, and nearly all are building destroyers, the displacements of which vary from 400 to 800 or 900 tons, and show a steady tendency to increase.

Submarines, also, are increasing in size as well as in numbers, the largest being 577 tons, now building in France. Germany and Austria have recently been added to the list of nations engaged in building submarines. The number and types of vessels building in the several countries are indicated below:

ENGLAND.

The programme for 1907 includes 3 large armored vessels of the *Dreadnought* type, 1 fast unarmored cruiser (3,300 tons), 5 ocean-going destroyers (800 tons), 12 first-class torpedo boats (250 tons), and 12 submarines.

The new vessels of the *Dreadnought* type, Nos. 5, 6, and 7, of which one has been named *St. Vincent*, are to be known as the "*St. Vincent*" class. Their armament is stated to be similar to that of the *Dreadnought*, but the displacement has been increased to 19,300 tons. The fast unarmored cruiser scout, known as the *Boadicea*, is to have a speed of 25 knots. The total sum of money to be expended for ship-building during the coming fiscal year is \$39,418,650.

FRANCE.

In view of the large number of vessels building under former programmes, which include 6 battle ships of the *Danton* class just laid down, 4 battle ships of the *Justice* class near completion, 4 large armored cruisers, and a large number of destroyers and submarines, the programme for 1907 provides for the beginning of 5 destroyers and 10 submarines. The sum authorized for new construction is \$18,696,346.

GERMANY.

According to the "fleet law," which authorizes a continuous building policy and specifies the building programme for each year up to and including 1917, there was authorized this year 2 battle ships, 1 armored cruiser, 2 protected (small) cruisers (scouts), 12 torpedo-boat destroyers, and \$714,000 to be expended for submarines.

The amount to be expended for new construction is \$30,575,860. The characteristics of the battle ships are not announced, but it is believed that they are to be of more than 18,000 tons displacement and are to carry a very large number of heavy-caliber guns. The armored cruiser is believed to be of about 19,000 tons displacement, to carry a number of heavy-caliber guns, and to have turbine engines. The small cruisers are to serve as scouts and possess high speed.

JAPAN.

The naval budget, as passed by the Diet and approved by the Emperor, carries appropriations amounting to \$17,965,793 for the construction and repairs of ships.

This includes the cost of repairs to ships in commission as well as the restoration of the Russian prizes and the building of new ships. About \$12,500,000 of the whole amount will be devoted to increasing the navy, the restoration of Russian prizes, and new construction.

The numbers and types of ships to be laid down are not yet officially announced. It is generally understood, however, that according to the programme Japan will, in the near future, lay down two battle ships of the most powerful type and displacement and several torpedo-boat destroyers and submarines. Two submarines are now building for Japan in England. A third battle ship is also included in the Japanese shipbuilding scheme, and it has been recently reported that a large battle ship has been contracted for in Great Britain for the Japanese Government, but this report appears not to be made with authority if true.

RUSSIA.

No definite programme has been announced. The minister has been authorized to include in his budget of 1908 an annual appropriation of \$15,000,000 for construction and armament of war ships in excess of the unexpended balance from 1906. Two battle ships of the largest types have been begun in St. Petersburg.

ITALY.

The naval budget for 1907-8 includes a provision for the beginning of one battle ship of 16,000 tons, a considerable increase in displacement over recent Italian battle ships.

AUSTRIA.

The programme for 1907 provides 3 battle ships of 14,500 tons, a very marked increase over previous Austrian displacements. It also includes a provision for 6 submarines, which are under construction or contracted for.

BRAZIL.

The Brazilian programme, which has been under consideration for some years and finally adopted, includes 3 battle ships, about 19,000 tons each; 2 scout cruisers; 18 torpedo boats and destroyers; 3 submarines; 1 mining vessel.

The cost of these is to be spread over a period of years. Of the above, 3 battle ships, 2 scout cruisers, and 10 destroyers are actually under construction or contracted for in British yards.

A tabular statement indicating the number of vessels building or already authorized under the shipbuilding programmes of different nations follows:

Foreign vessels building or authorized.

	Battle ships.	Armored cruisers.	Cruisers or scouts.	Destroyers.	Torpedo boats.	Submarines.
England.....	7	6	1	13	24	21
France.....	8	4	0	40	14	63
Germany.....	6	2	5	12	0	2
Japan.....	4	2	3	3	0	2
Russia.....	6	3	0	4	0	6
Italy.....	4	4	1	4	11	3
Austria.....	3	0	1	8	13	6
Brazil.....	3	0	2	10	0	3

The tonnage, sea strength, and personnel of the various naval powers to November 1, 1907, is given in the following tables:

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SEA STRENGTH.

SHIPS.

TABLE I.—Vessels built November 1, 1907.

	Battle ships. ^a	Armored cruisers.	Cruisers. ^b	De- stroyers.	Torpedo boats.	Sub- marines.	Coast- defense vessels. ^c
England.....	52	32	90	142	47	39	0
France.....	19	19	28	35	257	41	12
United States.....	22	10	41	16	32	12	11
Germany.....	22	8	38	60	48	1	8
Japan.....	11	11	19	54	77	7	3
Russia.....	5	4	15	93	57	25	4
Italy.....	10	6	11	13	66	8	0
Austria.....	3	3	5	4	36	0	6

^a Battle ships, first class, are those of (about) 10,000 tons or more displacement.

^b Includes all unarmored cruising vessels above 1,000 tons displacement.

^c Includes smaller battle ships and monitors. No more vessels of this class are being proposed or built by the great powers.

TABLE II.—Vessels building or to be built, November 1, 1907.

	Battle ships.	Armored cruisers.	Cruisers.	De- stroyers.	Torpedo boats.	Sub- marines.
England.....	^a 7	6	1	13	24	21
France.....	8	4	0	40	14	63
United States.....	^b 7	2	3	5	0	7
Germany.....	^c 6	2	5	12	0	2
Japan.....	4	2	3	3	0	2
Russia.....	6	3	0	4	0	6
Italy.....	4	4	1	4	11	3
Austria.....	3	0	1	8	13	6

^a England has no continuing shipbuilding policy, but usually lays down each year about four armored ships, with a proportional number of smaller vessels.

^b Two of these, the *Mississippi* and *Idaho*, are very nearly completed.

^c Germany has a continuing shipbuilding policy, authorized by the Reichstag, and extending to the year 1917. This authorization provides for the building between 1907 and 1917 of 16 battle ships, 12 armored cruisers, 22 smaller cruisers, and 132 torpedo vessels.

NOTE.—The following vessels are not included in the tables:

Those over 20 years old unless they have been reconstructed and rearmed since 1900.

Transports, colliers, repair ships, converted merchant vessels, and any other auxiliaries.

Vessels of less than 1,000 tons, except torpedo craft. Torpedo craft of less than 50 tons.

In making comparisons of naval strength, and particularly of naval increase, the fact should be taken into consideration that the rapidity of construction varies materially in different countries.

In England, Germany, and Japan battle ships and armored cruisers are completed in two to three years; in the United States from three to four years; and in France, Italy, and Russia not less than four years are required.

Table II includes vessels authorized but not yet laid down, as well as those actually under construction.

TABLE III.—Personnel.

Rank.	England.	France.	Ger- many.	Japan.	United States.
Flag officers.....	96	45	84	55	^a 18
Captains and commanders.....	618	360	299	245	^a 182
Other line officers and engineers ^b	3,289	1,874	1,732	1,571	751
Medical officers.....	521	409	234	306	282
Pay officers.....	537	187	189	263	210
Warrant officers.....	^c 2,007	1,484	2,033	1,064	638
Enlisted men.....	98,973	51,926	^d 42,400	41,070	34,062
Marine officers.....	490	.....	56	.....	277
Enlisted men (marines).....	17,526	.....	1,230	.....	8,147

^a The United States now has, in addition, temporarily, as extra numbers, due to promotion for war service, 4 flag officers, 13 captains, and 14 commanders.

^b Does not include midshipmen.

^c Includes chief gunners, chief boatswains, chief signal boatswains, chief carpenters, chief artificer engineers, chief schoolmasters.

^d Includes 1,230 men of the naval infantry. The German naval infantry forms an expeditionary corps. Its duty in war is to defend, and in peace to garrison, the home fortified ports. One battalion forms the garrison of Kiauchau, China.

PROGRAMMES FOR 1908-9.

The programmes for 1908, as far as they have been determined or published, are as follows:

ENGLAND.

The programme for 1908 has not yet been published. Unofficial statements indicate that it will probably include the following:

Two battle ships (*Dreadnought* type).
 Four medium-sized armored cruisers (improved *Edgar* type, foreshadowed last year).
 One large ocean-going destroyer ("special" or *Swift* type).
 Some ocean-going destroyers ("tribal" type).
 or
 Two battle ships (improved *Dreadnought* type).
 One armored cruiser (*Inflexible* type).
 Two medium-sized armored (or protected) cruisers (improved *Edgar* type, as foreshadowed last year).
 Six unprotected cruisers (or scouts, *Boadicea* type).
 Twelve ocean-going destroyers.
 A number of torpedo boats and submarines.

FRANCE.

The programme for 1908 is now being discussed in Parliament. The construction of six battle ships of 21,000 tons displacement and 20 knots speed is proposed, and appears to meet with general approval. Tentative designs for these ships are now being discussed.

GERMANY.

The programme of shipbuilding for the German navy is at present governed by the fleet law of 1900, amended in 1906.

This law establishes the total number of ships of each class which the navy is to contain when the authorized building programme shall have been carried out, and fixes the period within which each class of vessel shall be replaced, as follows:

	Authorized strength.	Age limit (years).
Battle ships.....	38	25
Large (armored) cruisers.....	20	20
Small (protected) cruisers.....	38	20
Torpedo craft.....	144	12

A shipbuilding programme was accordingly established which contemplated the attainment of the authorized strength by the year 1920, as well as the building of substitutes for such existing ships as should reach the age limit during the period covered by the programme; the ships to be laid down were distributed over the years 1906-1917.

It is now proposed to amend this by reducing the age limit of battle ships from 25 to 20 years. This proposal has been approved by the federal council.

The reduction in the life of battle ships will necessitate the replacement of 3 more battle ships between 1908 and 1917 than is contemplated by the present system, i. e., a total of 16 ships. This brings about a rearrangement of the building programme, as shown by the following table.

It is to be noted, however (as shown in the table), that 16 ships having been provided for between 1908 and 1916, an additional ship is set down for 1917.

Number of substitute battle ships to be laid down.

Year.	Present law.	Proposed law.	Year.	Present law.	Proposed law.
1908	2	3	1911	1	1
1909	2	3	1913	1	1
1910	1	3	1916	1	1
1911	1	2	1917	2	1
1912	1	1			
1913	1	1	Total	13	17

The immediate effect of the change is apparent from a glance at the table. During the four years beginning 1908 there will be laid down 11 battle ships instead of 6. Add to these the 2 ships of the 1907 programme, and it is seen that by 1914 (allowing three years to build a battle ship) Germany will possess 13 battle ships of upward of 19,000 tons displacement each.

The entire programme, as amended by the proposed law, would be as follows:

Year.	Battle ships.	Armored cruisers.	Protected cruisers.	Torpedo craft.
1907	2 substitute	1 additional	2 substitute	6 additional, 6 substitute.
1908	3 substitute	do	do	Do.
1909	do	do	do	Do.
1910	3 substitute, 1 additional.	do	do	Do.
1911	2 substitute	1 additional, 1 substitute.	do	Do.
1912	1 substitute	1 substitute	do	Do.
1913	do	do	do	Do.
1914	do	do	do	12 substitute.
1915	do	do	do	Do.
1916	do	do	do	Do.
1917	do	do	1 substitute	Do.

The estimates for the coming year contemplate a total expenditure of over \$82,000,000, of which one-half is for new ships and armaments. This is a large increase over the current estimates, as shown below:

	For ship construction and armament.	Total.
Current estimates (1906) (required to carry out present law)	\$32,316,580	\$68,272,680
Proposed amendment (1908) (required to carry out proposed law)	41,613,203	82,565,944

This programme is now being considered by the Reichstag.

JAPAN.

The programme for 1908 has not been officially announced. Two battle ships of over 19,000 tons displacement are to be laid down in the near future, and the proposed building of two large armored cruisers (of more than 18,000 tons), together with very fast scouts, has been

reported, but not yet substantiated. It is also reported that other battle ships and armored cruisers in addition to those mentioned above are proposed for construction in 1908.

RUSSIA.

The new programme has not yet been announced. It is reported to include a number of the largest type of battle ships.

ITALY.

The estimates of the ministry of marine for the fiscal year 1908-9 provide for continuing or completing work on all ships now under construction, including the 16,000-ton battle ship authorized in 1907. It is proposed to build altogether four of the new type battle ship, together with six 28-knot scouts and a further addition to the torpedo flotilla.

AUSTRIA.

The new programme has not yet been announced.

Vessels completed during 1907.

ENGLAND.		Tons.
<i>Hibernia</i> , battle ship.....		16,350
<i>Agamemnon</i> , battle ship.....		16,500
<i>Lord Nelson</i> , battle ship.....		16,500
<i>Achilles</i> , armored cruiser.....		13,550
<i>Cochrane</i> , armored cruiser.....		13,550
<i>Natal</i> , armored cruiser.....		13,550
<i>Warrior</i> , armored cruiser.....		13,550
4 destroyers (tribal class).....		3,165
12 torpedo boats.....		2,700
12 submarines.....		3,768
		113,183
FRANCE.		
<i>Démocratie</i> , battle ship.....		14,860
<i>Justice</i> , battle ship.....		14,860
<i>Liberté</i> , battle ship.....		14,860
<i>Jules Ferry</i> , armored cruiser.....		12,550
<i>Victor Hugo</i> , armored cruiser.....		12,550
6 destroyers.....		2,010
44 torpedo boats.....		4,198
3 submarines.....		1,186
		77,074
GERMANY.		
<i>Pommern</i> , battle ship.....		13,200
<i>Hannover</i> , battle ship.....		13,200
<i>Scharnhorst</i> , armored cruiser.....		11,500
<i>Gneisenau</i> , armored cruiser.....		11,500
<i>Koenigsberg</i> , cruiser.....		3,450
<i>Stuttgart</i> , cruiser.....		3,450
<i>Stettin</i> , cruiser.....		3,450
17 destroyers.....		9,150
		68,800
JAPAN.		
<i>Tsukuba</i> , armored cruiser.....		13,750
<i>Ikoma</i> , armored cruiser.....		13,750
13 destroyers.....		4,875
		32,375

NOTE.—The following vessels, which have been undergoing extensive reconstruction since the close of the Russian war, have been completed and fitted for service during the past year:

	Tons.
<i>Mikasa</i> , battle ship	15,200
<i>Iwami</i> (ex <i>Orel</i>), battle ship	13,500
<i>Soya</i> (ex <i>Variag</i>), cruiser	6,500
	<u>35,200</u>
New construction completed during 1907	32,375
Reconstruction completed during 1907	35,200
Total tonnage added to Japanese navy during 1907	<u>67,575</u>

RUSSIA.

<i>Rurik</i> , armored cruiser	15,000
<i>Kagul</i> , cruiser	6,675
25 destroyers	11,094
5 submarines	1,020
	<u>33,789</u>

ITALY.

<i>Regina Elena</i> , battle ship	12,425
4 destroyers	1,460
16 torpedo boats	3,359
	<u>17,244</u>

AUSTRIA.

<i>Erzherzog Ferd. Max</i> , battle ship	10,600
3 destroyers	1,200
13 torpedo boats	2,600
	<u>14,400</u>

The following table shows the vessels that have been under construction in the several countries during the past year:

Name.	Type.	Displacement.	Keel laid.	Remarks.
ENGLAND.				
<i>Hibernia</i>	B	16,360	January, 1904...	Completed January, 1907.
<i>Agamemnon</i>	B	16,500	October, 1904...	Practically completed end 1907.
<i>Lord Nelson</i>	B	16,500	November, 1904...	Do.
<i>Bellerophon</i>	B	18,600	December, 1906...	
<i>Temeraire</i>	B	18,600	January, 1907...	
<i>Superb</i>	B	18,600	February, 1907...	
<i>St. Vincent</i>	B	19,200	December, 1907...	
<i>Achilles</i>	A C	13,550	January, 1904...	Completed March, 1907.
<i>Cochrane</i>	A C	13,550	February, 1904...	Completed February, 1907.
<i>Natal</i>	A C	13,550	January, 1904...	Completed April, 1907.
<i>Warrior</i>	A C	13,550	November, 1904...	Completed June, 1907
<i>Defence</i>	A C	14,600	February, 1905...	
<i>Minotaur</i>	A C	14,600	January, 1906...	
<i>Shannon</i>	A C	14,600	do	
<i>Invincible</i>	A C	17,250	April, 1906	
<i>Infexible</i>	A C	17,250	February, 1906...	
<i>Indomitable</i>	A C	17,250	March, 1906...	
<i>Boadicea</i>	C	3,300	July, 1907...	
<i>Cossack</i>	d	810	1905	Completed 1907.
<i>Mohawk</i>	d	775	1905	Do.
<i>Tartar</i>	d	785	1905	Do.
<i>Ghurka</i>	d	795	1905	Do.
<i>Afridi</i>	d	810	1905	
<i>Swift</i>	d	1,800	1905	
<i>Saracen</i>	d	893	October, 1906...	
<i>Amazon</i>	d	888	do	
<i>Nos. 1-12</i>	t b	215	1906	Do.

Name.	Type.	Displacement.	Keel laid.	Remarks.
ENGLAND.				
Nos. 12-24.....	t b	260	1906.....	
Nos. 25-36.....	t b		1907.....	
A 13.....	sub.	204		
C 9-C 14.....	sub.	314	1906-6.....	Completed 1907.
C 15-C 18.....	sub.	314	1906.....	
D 1.....	sub.	(?)	1906.....	
FRANCE.				
Démocratie.....	B	14,860	May, 1903.....	Completed, 1907.
Justice.....	B	14,860	May, 1902*.....	Do.
Liberté.....	B	14,860	.....do.*.....	Do.
Vérité.....	B	14,860	.....do.*.....	Do.
Danton.....	B	18,350	1907.....	
Mirabeau.....	B	18,350	1907.....	
Voltaire.....	B	18,350	June, 1907.....	
Diderot.....	B	18,350	December, 1906*.....	
Condorcet.....	B	18,350	.....do.*.....	
Vergniaud.....	B	18,350	.....do.*.....	
Jules Ferry.....	A C	12,550	1901.....	Do.
Victor Hugo.....	A C	12,550	March, 1903.....	Do.
Jules Michelet.....	A C	12,750	June, 1904.....	
Ernest Renan.....	A C	13,644	August, 1903*.....	
Edgar Quinet.....	A C	14,000	November, 1905.....	
Waldeck Rousseau.....	A C	14,000	June, 1906.....	
Styiet.....	d	335	March, 1904.....	Do.
Pierrier.....	d	335	October, 1904.....	
Tromblon.....	d	335	July, 1904.....	Do.
Obusier.....	d	335	.....do.....	Do.
Mortier.....	d	335	September, 1904.....	Do.
Carquois.....	d	335	July, 1906.....	
Trident.....	d	335	.....do.....	
Pleuret.....	d	335	May, 1906.....	Do.
Coutelas.....	d	335	.....do.....	Do.
Glaive.....	d	335	.....do.....	
Poignard.....	d	335	.....do.....	
Cognée.....	d	335	May, 1906.....	
Hache.....	d	335	August, 1906.....	
Masseue.....	d	335	November, 1906.....	
Sabretache.....	d	335	November, 1906*.....	
Griffamme.....	d	335	.....do.*.....	
Etendarde.....	d	335	.....do.*.....	
Fanion.....	d	335	.....do.*.....	
Sape.....	d	335	.....do.*.....	
Gablon.....	d	335	.....do.*.....	
Branlebas.....	d	335	.....do.*.....	
Panfare.....	d	335	.....do.*.....	
Hussard.....	d	335	October, 1906*.....	
Voltigeur.....	d	335	.....do.*.....	
Tirailleur.....	d	335	.....do.*.....	
Chasseur.....	d	335	.....do.*.....	
Spahi.....	d	335	.....do.*.....	
Carabinier.....	d	335	.....do.*.....	
Janissaire.....	d	335	December, 1907*.....	
Mameluk.....	d	335	.....do.*.....	
46 torpedo boats.....		97	1904*.....	44 boats completed, 1907.
Esmeralde.....	sub.	390	December, 1904.....	Completed, 1907.
Opale.....	sub.	390	.....do.....	Do.
Rubis.....	sub.	390	.....do.....	Do.
Saphire.....	sub.	390	May, 1906.....	
Topaze.....	sub.	390	March, 1906.....	
Turquoise.....	sub.	390	.....do.....	
Guepe No. 1 and No. 2.....	sub.	45	October, 1904.....	
Omega.....	sub.	301	February, 1904.....	
Orice.....	sub.	351	April, 1906.....	
Calypso.....	sub.	351	.....do.....	
Pluviose.....	sub.	398	August, 1906.....	Do.
Ventose.....	sub.	398	.....do.....	Do.
Q 53-Q 60.....	sub.	398	.....do.....	
Q 62-Q 63.....	sub.	398	.....do.....	
Q 64-Q 69.....	sub.	398	.....do.....	
Q 70-Q 72.....	sub.	398	August, 1906*.....	
Q 75-Q 80.....	sub.	398	.....do.*.....	
Q 83-Q 88.....	sub.	398	.....do.*.....	
Q 73.....	sub.	577	.....do.*.....	
Q 74.....	sub.	530	.....do.*.....	
Q 82.....	sub.	555	.....do.*.....	
Q 89.....	sub.	355	.....do.*.....	
Q 90-Q 99.....	sub.	398	August, 1907*.....	

*Signifies date of contract or of order to dockyard; where there is no * the date is that of the actual laying of the keel.

Name.	Type.	Displacement.	Keel laid.	Remarks.
GERMANY.				
Pommern.....	B	13,200	April, 1904.....	Completed 1907.
Hannover.....	B	13,200	.....do.....	Do.
Schleswig Holstein.....	B	13,200	July, 1906.....	
Schlesien.....	B	13,200	.....do.....	
Ersatz Bayern.....	B	18,000	May, 1907.....	
Ersatz Sachsen.....	B	18,000	April, 1907.....	
Ersatz Baden.....	B	18,000	July, 1907.....	
Ersatz Württemberg.....	B	18,000	May, 1907.....	
Scharnhorst.....	A C	11,500	June, 1905.....	Do.
Gneisenau.....	A C	11,500	June, 1904.....	Do.
"E".....	A C	15,000	December, 1906.....	
"F".....	A C	19,200	September, 1907.....	
Koenigsberg.....	C	3,450	July, 1904.....	Completed 1907.
Stuttgart.....	C	3,450	1905.....	Do.
Stettin.....	C	3,450	1905.....	Do.
Nurnberg.....	C	3,450	December, 1905.....	
Dresden.....	C	3,800	1906.....	
Ersatz Pfell.....	C	3,800	1906.....	
Ersatz Greif.....	C	3,800	1907.....	
Ersatz Jagd.....	C	3,800	1907.....	
G 131-G 135.....	d	400	1905.....	Do.
S 138-S 149.....	d	520	1906.....	Do.
V 150-V 161.....	d	(?) 631	1907.....	
Submarines.....		(?)	(?)	(?)
JAPAN.				
Satsuma.....	B	19,150	May, 1905.....	Launched Nov. 15, 1906.
Aki.....	B	19,800	December, 1905.....	Launched Apr. 15, 1907.
Tsukuba.....	A C	13,750	January, 1905.....	Completed January, 1907.
Ikon'a.....	A C	13,750	March, 1905.....	Completed December, 1907.
Kurama.....	A C	14,600	September, 1905.....	Launched Oct. 21, 1907.
Ibuki.....	A C	14,600	May, 1907.....	Launched Nov. 22, 1907.
Tone.....	C	4,100	October, 1906.....	Launched Oct. 24, 1907.
Yodo.....	C	1,250	1906.....	Launched Nov. 19, 1907.
Mogami.....	C	1,350	1906.....	Launched Oct. 31, 1907.
Shirayuki.....	d	375	May, 1905.....	Completed 1907.
Hatsuharu.....	d	375	1905.....	Do.
Yudachi.....	d	375	March, 1905.....	Do.
Mikazuki.....	d	375	June, 1905.....	Do.
Nowake.....	d	375	August, 1905.....	Do.
Shiroyoe.....	d	375	July, 1905.....	Do.
Yunagi.....	d	375	1905.....	Do.
Utsuki.....	d	375	1905.....	Do.
Shigure.....	d	375	1905.....	Do.
Minatsuki.....	d	375	1905.....	Do.
Nagatsuki.....	d	375	1905.....	Do.
Matsukaze.....	d	375	1905.....	Do.
Kikut-uki.....	d	375	1905.....	Do.
Uranami.....	d	375	1907.....	
Isanami.....	d	375	1907.....	
Ayanami.....	d	375	1907.....	
2 submarines.....	s	314	1907.....	Building in England.
RUSSIA.				
Evstaf.....	B	12,700	1903.....	
Ivan Zlatoust.....	B	12,700	November, 1903.....	
Imp. Pavel I.....	B	16,600	October, 1903.....	
Andreï Pervosvanni.....	B	16,600	January, 1903.....	
Rurik.....	A C	15,000	1905.....	Completed 1907.
Bayan.....	A C	8,000	1905.....	
Pallada.....	A C	8,000	1905.....	
Adm. Makharoff.....	A C	8,000	1905.....	Building in France.
Kagul.....	C	6,675	March, 1901.....	Completed 1907.
Pamiat Merkuria.....	C	6,675	September, 1901.....	
4 destroyers.....	d	615	1904-5.....	Do.
8 destroyers.....	d	500	1904-5.....	Do.
13 destroyers.....	d	350	1904-5.....	Do.
4 destroyers.....	d	605	1906.....	
2 submarines.....	s	150	1904.....	Do.
3 submarines.....	s	240		Do.
Akula.....	s	360		
Minoga.....	s	117		
4 submarines.....	s	425		
ITALY.				
Regina Elena.....	B	12,425	September, 1901.....	Completed 1907.
Vittorio Emanuele.....	B	12,425	.....do.....	
Napoli.....	B	12,425	October, 1903.....	
Roma.....	B	12,425	September, 1903.....	
San Giorgio.....	A C	9,830	July, 1905.....	

Name.	Type.	Displacement.	Keel laid.	Remarks.
ITALY—continued.				
San Marco	A C	9,830	July, 1907..	
Pisa	A C	9,830		
Amalfi	A C	9,830		
Artigliere	d	365	1904.....	Completed 1907.
Bernagiere	d	365	1904.....	Do.
Granatiere	d	365	1904.....	Do.
Lanciere	d	365	1904.....	Do.
16 torpedo boats	s	210	1901-5.....	Do.
8 submarines	s	150		
AUSTRIA.				
Erzherzog Ferd. Max	B	10,600	1908.....	Completed 1907.
Ersatz Tegetthof	B	14,500	1907.....	
Ersatz Rudolph	B	14,500	1907.....	
Ersatz Zara	C	3,500	1907.....	
Ulan	d	400		Do.
Streiter	d	400		Do.
Wildfang	d	400		Do.
Scharfschütze	d	400		
Uskose	d	400		
6 submarines	s		1907.....	

TABLE I.—Vessels built, February 1, 1908.

	Battle ships.	Armored cruisers.	Cruisers.	Destroyers.	Torpedo boats.	Submarines.	Coast-defense vessels.
England.....	53	32	90	146	47	42	0
France.....	18	19	26	88	264	42	11
United States.....	23	10	40	16	32	12	11
Germany.....	22	8	38	60	48	1	8
Japan.....	11	11	19	64	74	7	3
Russia.....	5	4	15	93	57	25	4
Italy.....	10	6	11	17	66	3	0
Austria.....	3	8	5	4	39	0	6

^a Idaho and New Hampshire not included.

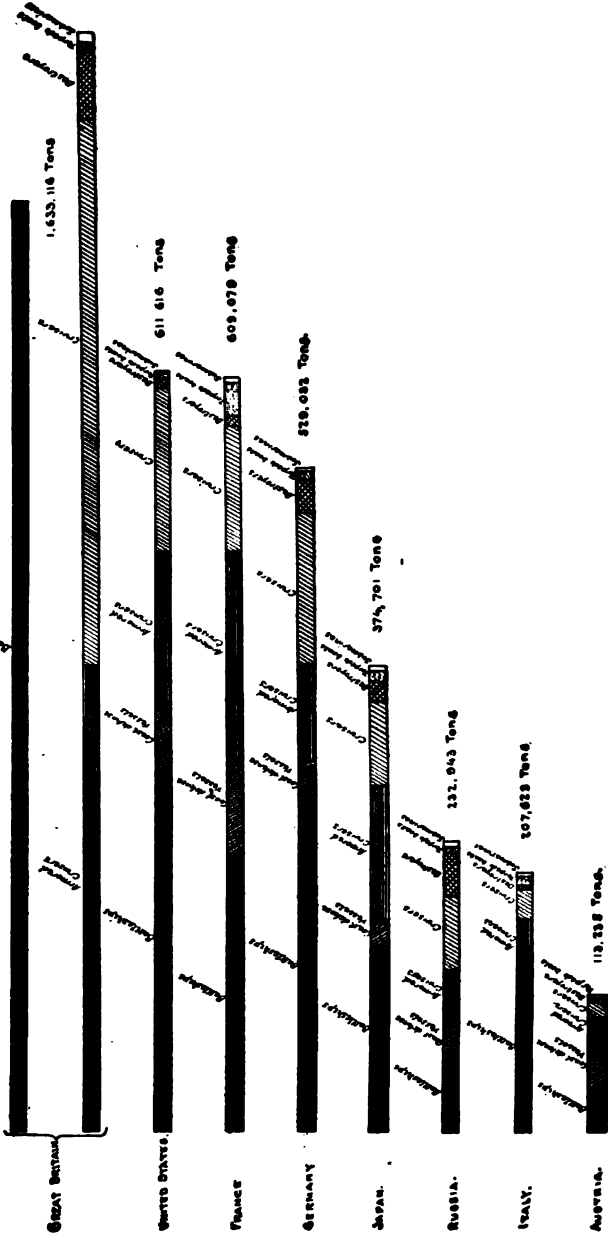
TABLE II.—Vessels building or to be built, February 1, 1908.

	Battle ships.	Armored cruisers.	Cruisers.	Destroyers.	Torpedo boats.	Submarines.
England.....	6	6	1	9	24	18
France.....	12	4	0	37	2	59
United States.....	6	2	8	5	0	7
Germany ^a	9	3	7	24	0	(?) 2
Japan ^a	4	2	3	4	0	2
Russia.....	6	3	0	4	0	6
Italy ^a	7	4	1	0	11	3
Austria.....	3	0	1	8	10	6

^a Includes vessels in 1908 programme.

WAR SHIP TONNAGE OF THE PRINCIPAL NAVAL POWERS.
SHIPS BUILT.

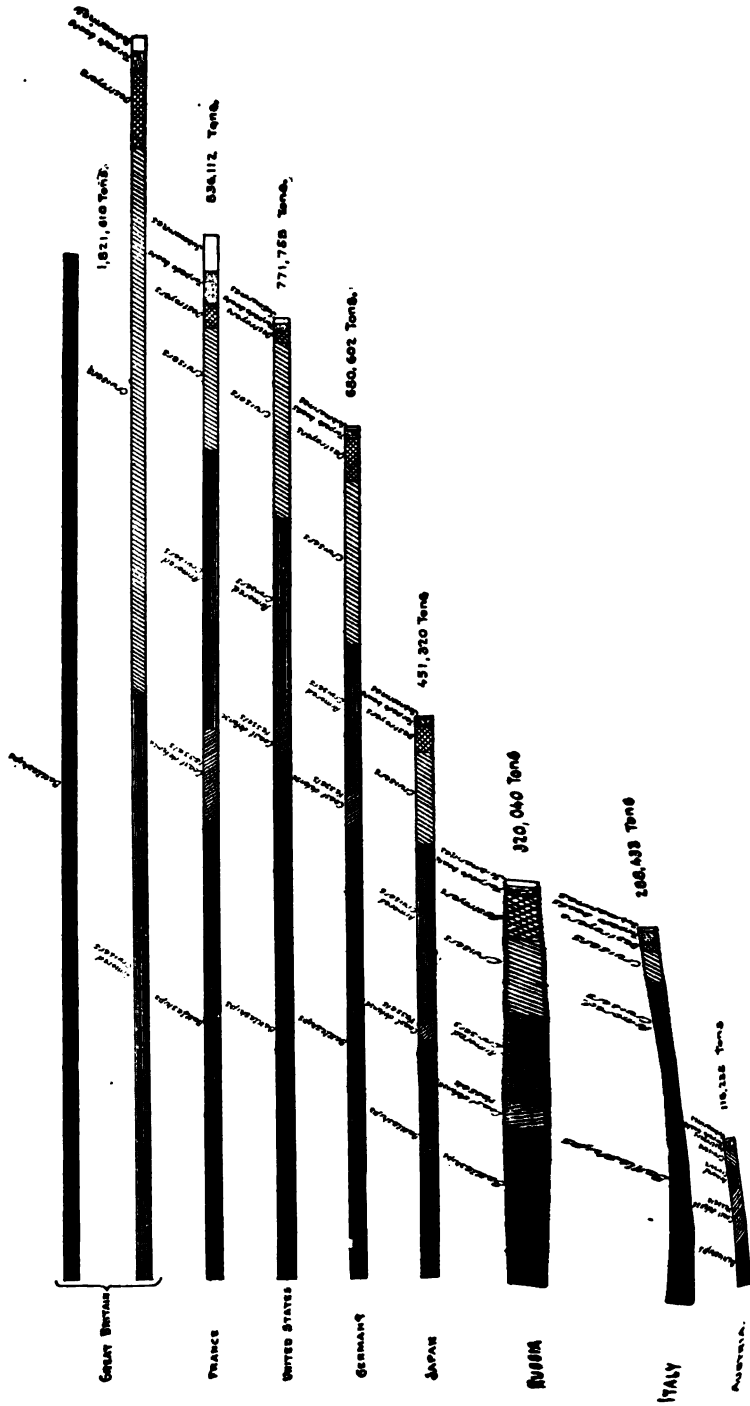
November 1, 1907



WAR SHIP TONNAGE OF THE PRINCIPAL NAVAL POWERS

SHIPS BUILT & BUILDING.

November 1, 1907.



NAVAL APPROPRIATION BILL.

APRIL 6, 1908 (Calendar day, April 8, 1908).—Committed to the Committee of the Whole House on the state of the Union and ordered to be printed.

Mr. HOBSON, from the Committee on Naval Affairs, submitted the following as the

VIEWS OF THE MINORITY.

[To accompany H. R. 20471.]

Under the head of "Increase of the Navy" we recommend that provision be made for four first-class battle ships instead of two.

Four are recommended by the General Board of the Navy, four are recommended by the Secretary of the Navy, four are recommended by the President of the United States. Though considerations of expediency have led the committee to a recommendation of two at this session, in reality four would, we believe, conform to the conviction of the majority of the Committee on Naval Affairs as to the needs of the Navy.

These needs have grown rapidly in the last few years, due to the nation's growth and to the rapid developments in Asia.

Our existing Navy has been built primarily for the needs of one ocean. We now suddenly find needs in two oceans. The needs in the Atlantic have not diminished and the needs in the Pacific are fully as great. To meet these doubled needs, we have only ships enough for one fleet. When this fleet is in the Atlantic, we are defenseless in the Pacific; when it is in the Pacific, we are defenseless in the Atlantic. The completion of the Panama Canal will not obviate the necessity for two fleets, for we are liable to have the demand for protection in both oceans at the same time.

Coincident with the doubling of the needs of our Navy there has been a revolution in naval architecture, bringing forth a new type of armored vessel of 17,000 tons and upward. All the other nations responded quickly with programmes of rapid construction. We have lagged behind.

Great Britain has ten large vessels of new type in various stages of construction, having launched six of them last year, and two more are soon to be laid down. France has six building and six about to be authorized. Germany has five building and has authorized four more to be laid down this year and four more next year. Japan has two practically

completed, two building, and is to lay down seven more this year. We have but two, and these are only in the early stages of construction.

To hold our present position of naval strength among the nations of Europe would require laying down not less than six of these vessels this year. To hold our present position among the nations of Asia would require an equal number. Therefore in meeting the simultaneous demands from Europe and Asia both, the number of vessels recommended in this minority report is an irreducible minimum. It should be borne in mind that we are dealing with the important question of the national defense, and are performing the work of self-preservation for the nation. Throughout all creation, from the smallest unit of protoplasmic life up to the largest social organism, the law of self-preservation stands first. In animal life the whole resources and activities are held in readiness for any requisition that self-preservation may demand. For nations the function resides in the government, in fact governments were first evolved to meet the demands of more perfect defense. It was chiefly for the purpose of defense that families became organized into clans and formed a clan government, and that clans became organized into tribes and tribes into nations; and it seems now that nations will be organized into races for this great purpose.

In the great nations of Europe the provision for national defense is vested chiefly in the executive branch of the government. Though provision for the funds involved is usually made by the legislative branch, yet the executive branch has more or less free hand in determining the policies deemed advisable, and seldom is a decision or recommendation of the ministry reversed or reduced by parliament. In America, on the other hand, the function of providing for the national defense resides chiefly in the legislative branch of the Government. This is the usual case in republics, and has been a source of weakness in republics from the earliest days. The legislative function of the government is closest to the masses of the people, and the masses of the people in any land are usually absorbed in domestic problems and are seldom alive to the demands of the outside world, so that republics have always been found weak in making preparations for national defense. This is undoubtedly the reason why the forms of government that have survived and come down from the ancient days are those of centralization. Heretofore this weakness has not been fatal to the growth and development of America, because of the fact that the oceans have constituted a great barrier between America and the armies of the world. Now, however, the oceans have been bridged and the armies of the world have been brought to our doors, and along with the armies of the older nations of Europe have come the armies of the ancient nations of Asia.

Furthermore, the work of national defense has been wonderfully developed and consists chiefly in preparations that must be made in advance. Formerly it required only about two months to build ships of war or to convert merchant vessels into efficient ships of war, and it required that length of time for an enemy to embark and cross the ocean and reach our shores. To-day the construction of a battle ship requires upward of three years, the average time in America having thus far been over five years, whereas an army can embark in Europe and be off our shores inside of two weeks.

Even in the case of armies, the numbers now are so vast and the amount of equipment is so stupendous that long preparations must likewise be made in advance. The centralized nations of the world are making these necessary preparations in advance, while America is not. In our past wars we have been able to come out with ultimate success, though the price paid for being unprepared has been enormous. To-day the penalty for being found unprepared would simply stagger the imagination.

Formerly America lived more or less in isolation. To-day she has become the greatest export nation of the world and is exciting the jealousy of other great nations in threatening their supremacy in commerce, industry, and finance. In addition recent events have thrown us into the political vortex of the world, and the dangers of being unprepared are becoming greater and greater with each succeeding year.

Many seem to imagine that with the justice of our attitude in foreign relations there will be no danger. The history of the world does not bear out this supposition and human nature contradicts it at every point. Even in the most peaceful community the self-defense of the most just citizen must rest upon power and not upon general benevolence. This vital function of self-preservation can not be properly left to outside benevolence in man or in nations, and it is fundamentally wrong and indeed partakes of sacrilege to fail to make the provisions of power necessary to guarantee self-preservation. "He who careth not for his own is worse than an infidel."

The power required can be derived more efficiently by organization than by individual provision. This is really the way in which protection is secured in civilized societies. All the citizens secure protection through the collective operation of power, but even here it is clear that such operation can not be provided except with an organized system of law based on principles of justice.

A collective system would likewise be the most efficient and least burdensome for the nations of the world, and toward this end the world is doubtless moving; but at the present juncture no one can question the fact that collective power is inadequate and practically does not yet exist. There is no system of police for the nations. There is no system of law that has the sanction of nations, with penalties to secure observance. There is no body yet organized with authority to make laws for the nations, and no body yet organized with the necessary jurisdiction to adjudicate under and interpret such laws, and no body has yet been organized to enforce these laws and bring violators to the bar of justice. The furthest advance that has yet been made is a resort to arbitration treaties between the nations in pairs, and even these treaties provide only for arbitration where questions of honor and questions of "vital interests" are not involved. These questions are still reserved for individual protection. Between some of the smaller powers arbitration treaties have been made general, but between the great powers that determine the world's policies only minor and incidental questions are yet arranged to be settled by arbitration, and even in these cases there is no constituted power to enforce obedience to the adjudication of an arbitration court. America has taken the most prominent part in the movement to evolve an international organization along lines analogous to the organization of our

United States, and the Inter-Parliamentary Union has been the most effective factor in this work.

We have reason to be proud of the fact that the gentleman from Missouri [Mr. Bartholdt] has been the most conspicuous figure in securing the adoption of the progressive policies thus far adopted, being, in particular, the author of the resolution of St. Louis, which brought forth the second Hague conference and the adoption in principle of periodicity for these conferences by our Government and by a majority of the powers. The American group was likewise in the lead in bringing forth the resolutions of Brussels and London, which contained the proposals constituting the chief fruits of the second conference at The Hague. It is to be hoped that the work of the Inter-Parliamentary Union may be even more fruitful in the future; and it is possible to see how this union, through recognition and organization by the various parliaments of the world, may in the end evolve into what may be likened to a lower house of an international legislative body, The Hague conferences evolving into an upper house.

As a result of the advanced position taken by the American delegates at the second Hague conference the principle of a potent international court was adopted, and whether such a court is to be developed by the expansion of the jurisdiction and organization of the existing Hague court or otherwise, the first step toward an adequate international court has already been taken. As yet there have been no steps taken toward evolving the equivalent of an international executive body, though the conception of an executive force has been evidenced by tentative proposals or a union among nations which would place the naval and military power of all the members of the union at the disposal of the union for enforcing the decisions of arbitration or other courts.

It must be borne in mind that it required long periods to develop adequate systems of organization within the nations themselves and while these organizations have been schools of preparation, yet the most sanguine hope can not expect an adequate international organization for a long time yet to come. Furthermore, even after such an organization has been completed, and until its efficiency and sufficiency have been demonstrated, the vital function of self-preservation can not be surrendered by individual nations. A resort to trial by battle survived for five hundred years the beginning of trial by jury.

Thus the first duty, that of self-preservation, must rest on power, and at this juncture in the world's history the power must rest upon the nation itself.

Moreover, this power should be adequate. It is not sufficient simply to be able to repel aggression when it comes. Power should be sufficient to discourage aggression. The true principle upon which our national defense must be founded is not only to insure fundamentally that our country shall win in any war that comes, but also that our country should avert every war that it is possible to avert.

There are two instrumentalities of power for national defense—one in the form of armed men, the other in the form of ships. The maintenance of armies in modern days entails the taking away of a large part of the male population from useful pursuits, and thus curtails seriously the national productiveness. The occupation of men in military pursuits tends also to produce a spirit which is not conducive to the preservation of free institutions. On the other hand, the main-

tenance of navies is essentially a question of wealth to build and maintain ships; and the maintenance of even a great navy still leaves the bulk of a nation's population engaged in useful pursuits and thereby in producing additional national wealth. Again, even the small percentage of the national population required for a great navy remains out at sea, far away from the people themselves, so that there is no possible tendency of militarism in maintaining great naval power. The inherent advantage of choosing naval power rather than military power is recognized by all nations, and the nations of the world seize upon all the possibilities for deriving national defense through an adequate navy. Take, for instance, the case of Germany. With only 800 miles of water front, Germany aspires to have the second or even the first navy in the world.

In the case of America the conditions are absolutely ideal. We do not maintain, and can not and should not maintain, a great standing army. Fortunately the great armies of the world can only reach us over the water. We are the great ocean continent, and with a navy in control of the waters that wash our shores our nation can dwell in absolute security and pursue its course in tranquillity and work out its destiny in peace and safety.

Let us now investigate the question of an adequate naval defense for America. It may be remarked that such questions are no longer matters of opinion or of personal preference. In all other nations they are now, and they should be in our nation, matters of scientific determination. In discussing the contingencies of the exercise of naval power there is, of course, no suggestion or intimation of any unfriendly feeling toward any nation. It is purely a scientific question, and all nations investigate such questions. In other nations the investigation, however, goes on within the walls where the general staff hold their councils. In America, from the nature of our Government, the people have to constitute the general staff, and our conferences upon war contingencies must be made in open Congress.

Let us take the first question of providing adequate defense from the contingencies of aggression from the nations of Europe. A glance at the map of the Atlantic Ocean shows at once that America is the most exposed nation found upon its shores. Considering the question of the length of coast line, and counting the indentations, we find that Great Britain has about 2,200 miles; France, 1,700 miles; Germany, 800 miles—a total of 4,700 miles for the three maritime nations of Europe. Coming across to America, we find on the Atlantic Ocean proper 5,400 miles; on the Gulf, 4,300 miles, or a total of 9,700 miles, almost double the total of the three maritime nations of Europe. Moreover, our country is accessible upon waterways as no other country in the world. The nations of Europe referred to can not be penetrated to any considerable distance inland, whereas through the St. Lawrence and the Canadian canals, all in foreign territory, light-draft vessels can reach the Great Lakes, where America has 4,700 miles of coast line. Furthermore, the great river systems penetrate to the very heart of the nation, and there are more than 15,000 miles of navigable river waterways leading up from the ocean, making thus about 20,000 miles of additional water line exposed to naval attack.

The outlying possessions in the West Indies should be properly regarded as an exposed coast line, adding 7,500 miles to the above figures, making altogether about 37,000 miles of water line.

When we realize that our country has assumed responsibilities toward the coast line to the south of us, we have in addition 1,700 miles for Mexico, 1,500 miles for Central America, and 12,500 miles for South America, making 15,700 miles of Atlantic coast line added by the Monroe doctrine, or altogether over 50,000 miles of coast line for which we are responsible, as against 4,700 miles on the same ocean for which the three principal maritime nations of Europe are responsible.

America has built her great cities on her waterways as no other country in the world. On the Atlantic, including the counties that border upon waterways, we have 15,800,000 population and \$17,600,000,000 of property values practically within gunshot of the water. For the Gulf there are 1,900,000 population and \$800,000,000 property; for the Great Lakes, 7,000,000 population and \$7,200,000,000 of property; for the Mississippi Valley, 11,500,000 population and \$8,600,000,000 of property—making a total of over 36,000,000 of our people and over \$37,000,000,000 of our property practically within gunshot of the water.

More American citizens are thus exposed than there are citizens similarly exposed in all Europe combined, and more American property exposed than there is other property exposed in all the rest of the world combined.

From the standpoint of police protection and of security for national interests, from this comparison alone it is clear America should logically have the largest navy in the Atlantic Ocean.

It should be borne in mind that the people who live away from the waterways are involved just as the people who live on the waterways, not only because our prosperity is interwoven and goes up and down in all sections together, but also because our exports, drawn from the inland as well as coastwise sections, have become the largest in the world, now mounting up toward two billions of dollars per year. We are coming more and more to produce a surplus of the world's great staples, and this surplus must have an opportunity to go across the ocean and receive fair and just treatment in the markets of the world.

A closer investigation shows that our vulnerability is even greater than thus appears. It is utterly impossible to provide mobilization where the distances are so great, whereas mobilization for the other nations is the simplest of undertakings. As compared with other nations, we are utterly lacking in a merchant marine from which not only to draw the men needed for expansion in time of war and auxiliary vessels for war purposes, but also transports necessary for properly conducting war operations.

We have almost no standing army and could not prevent the seizure by a foreign power of a harbor on our shores or near our shores, to be used as a naval base; whereas it would be practically impossible for America to secure a naval base for operations in European waters.

Forts, mines, torpedoes, torpedo boats, and submarines are valuable accessories, but such defenses have never stopped a determined commander of a great fleet. They did not stop Nelson at Copenhagen, nor Farragut at Mobile Bay, nor Dewey at Manila. Such defenses never determine the issues of a war and have no weight in deterring an enemy from seeking war. The forts that we have are woefully undermanned, and the troops needed for their landward defense could not be mobilized within the time necessary.

It would be impossible for America to make raids upon the shores of Europe, but it would be a very simple thing for European nations to make raids against the shores of America, taking our forts from the rear and then ransoming or bombarding the cities or leaving them in ruins, escaping without suffering appreciable injury. Great Britain, Germany, or France could send a single expedition of 150,000 men, land at two points, and capture Washington, Baltimore, Philadelphia, and New York before we could make any substantial resistance.

It is thus clear that America is by all odds the most vulnerable nation on the Atlantic Ocean, and that for the elemental purposes of self-defense we must control the sea on this ocean.

It is vain to imagine that there could arise no questions that might lead to conflict. Even the most peaceable citizens in the most civilized communities constantly find differences that would lead to clashes, except for restraint. America's growing commercial, industrial, and financial competition will tend more and more to lay her open to attack.

We have assumed the Monroe doctrine, which has not been accepted by any of the great nations of Europe. The area covered by this doctrine is farther from us than it is from Europe, and if we would maintain it we must have control of the ocean.

The relation that our central Government bears to the citizens and subjects of foreign nations has been and will continue to be a serious danger. Again and again European nations have called upon our Government to assume responsibilities involved in the attack upon the property and persons of their subjects in individual States, and in every case our Government has been powerless to comply with the demand. Fortunately, no nation of Europe has yet been in a position to, or has felt inclined to, resort to force, but this source of possible conflict remains the same.

Our American institutions have not been accepted with satisfaction by the governing classes of European nations holding their offices from claims based upon the hereditary principle. These Governments control the armies and the navies, and naturally look upon the growing influence of America with concern.

Therefore, the only conclusion to arrive at is that America must be prepared to control the sea in Atlantic Ocean as against any nation of Europe.

What now is our actual relative position in naval strength? Great Britain has 45 battle ships and 33 armored cruisers, or a total of 78 armored vessels available in Atlantic waters; France has 31; Germany has 27; while America has only 5—3 battle ships and 2 armored cruisers. These nations of Europe are seizing upon the recent revolution in naval architecture and are creating new fleets of great power, made up of the great new type of ship popularly spoken of as the *Dreadnaught* type. Great Britain has already laid the keels for 10 of these great vessels, having launched 6 during the course of last year; France has laid the keels of 6 of these vessels, 3 last year and 3 the year before; Germany has laid the keels of 5; the United States has laid the keels for 2. Great Britain announces that by the spring of 1911 she will have as many of these great ships as the rest of the world combined. France proposes to lay down 6 of these great vessels this year. Germany has already authorized the laying down of 4 this year and 4 next year.

The appropriation bill proposes to cut in half the comparatively small number recommended by the President. As a matter of fact, the very minimum demanded by a reasonable programme for the Atlantic Ocean alone would be not less than 6 vessels this year.

But the Atlantic Ocean is not the only ocean we have to defend. As pointed out above, our existing Navy was built up for this ocean, but now suddenly we find the necessity for defending another ocean, and we do not find another fleet available. An examination of the Pacific Ocean shows that we have in the Aleutian Islands and Alaska 5,100 miles of coast line, and on our Pacific coast proper, 3,100 miles, or 8,200 miles. In addition to this we have Hawaii with 780 miles; Guam, 80 miles; Samoa, 85 miles, and the Philippine Islands, 13,600 miles; making a total of 14,550 miles, in addition to the 8,200 miles of continental coast line, making a total of 22,750 miles. When we realize that we must be prepared to maintain the Monroe doctrine on the Pacific side of South America as well as the Atlantic side, we find additional coast line as follows: 1,100 miles for Mexico; 1,800 miles for Central America; 13,800 miles for South America—a total of 16,800 miles, which, added to the coast line of our own territory, makes a grand total of 39,550 miles, whereas the total coast line of Japan is only 13,000 miles.

The same conditions of disadvantage that we find in the Atlantic are repeated in the Pacific, even with greater disparity. With three times the amount of coast line, we spread over the whole ocean, while the whole Japanese coast line is concentrated there at home, permitting of a perfect defense. Furthermore, our land defenses on the Pacific slope are utterly inadequate, and we have so neglected the establishment of naval bases that our outlying possessions, instead of being a source of strength, are a source of great weakness, and it is a question whether it would prove possible to maintain a great fleet efficiently in the Pacific Ocean, although the necessity for doing so is now unquestioned.

The lack of a merchant marine for transport service and the lack of troops for garrison duty, as compared with the great merchant marine of Japan and the great standing army of that country, are always present to place us at tremendous disadvantage. Moreover, in Hawaii there are more than 100,000 Japanese and only 7,000 Americans, with no garrison to speak of and no fortifications to repel the landing of expeditions with armies and equipment. Furthermore, in the Philippine Islands there exist organizations which would tend to produce an uprising among the Filipinos in the event of war. It is not overstating the case to say that in view of the great armies that are gathering in the Far East, our Pacific slope will be open to attack, unless we have permanent control of the sea; and in this case the attack could be more than temporary raids, as on the Atlantic Ocean. Given the open ocean, as compared with the broad continent, the yellow peoples of Asia could put ten times as many men on the Pacific slope as we could from the centers of our population. Taking account of the Rocky Mountain region and the location of the Pacific slope, we must realize that the yellow man, in control of the Pacific Ocean, will possess himself of our territory between the coast range and the sea.

It would be folly for us to imagine that our safety and security, in the midst of all this exposure, could rest upon sentiment or simply traditional friendship. In fact, it is wrong for us to place the tempta-

tion that we have placed in the path of Japan. It is perfectly natural for Japan to aspire to dominate the commerce of China, the commerce of Asia and of the Pacific Ocean; it is perfectly natural for Japan to seek to control the policies of China and to attain supremacy in the Pacific Ocean, and to lead the yellow race toward a recognized supremacy in the world.

It is, of course, clear to Japanese statesmen that America is the one great nation standing athwart of the realization of these ambitions. It is true that America only asks a fair chance and no favor, simply the open-door policy in China, but this policy goes counter to the Japanese ambitions. America is the one great nation with island possessions in all quarters of the Pacific Ocean, and the one great nation with wealth sufficient to maintain a navy to guarantee the control of the sea. Japan, an island country, while absolutely safe from invasion, is still amenable to constraint from any power in control of the sea in the Pacific Ocean. It is a fact that ever since our occupation of the Philippine Islands measures have been taken by Japanese to foster the possibilities of an uprising among the Filipinos in case of war between Japan and the United States. Of course we accept Japan's protestations of friendship, and we most cordially reciprocate friendly feelings. Furthermore, we should realize that if any breach should come between the two countries it would be our fault, on account of being so defenseless, and not the fault of Japan. But, pursuing our scientific analysis of the conditions in the Pacific Ocean, we can not ignore the fact that Japan has undertaken stupendous war preparations; preparations which have doubled the national debt of Japan since the war with Russia was over. It is estimated that she has over 400,000 men now under arms, yet there is no menace from the armies of Siberia or the armies of China or the armies of Europe. No nation since the world began has ever maintained such an army under such conditions, except as a preparation for an early campaign of aggression.

Notwithstanding the fact that five battle ships of the Russian navy have been added to the Japanese navy, and although the Russian fleet has vanished from the Pacific Ocean and there is no fleet of any size of any European nation in that ocean and no fleet of any European nation is available to be sent away from Europe into those regions, yet Japan has launched upon a stupendous programme of naval expansion, including the construction of great ships of the *Dreadnought* type.

Some have imagined that Japan's warlike preparations are intended for China. No one can conceive how new *Dreadnoughts* and a great new navy would be needed against Chinese gunboats. We can not ignore the fact that warlike activities have been going on in Japan at a feverish rate since the war with Russia was over, including the establishment of armor-plate factories, factories for heavy ordnance, additional factories for torpedoes, for high explosives, and all forms of equipment, while a vast force of men has been working night and day in all these establishments, in the arsenals, and in shipyards.

Japan has made great purchases of war material abroad. Not only have war ships been ordered abroad, but guns and rifles. Krupp is supplying 2,000 forgings for field artillery, while America has supplied 750,000 rifle barrels, although our own troops have not yet been supplied with new rifles. In addition, great loans have been made to raise money at home and abroad, and comparatively enormous sums are being held ready. Neither can America ignore the fact that two

naval bases have been established in Formosa and in the Pescadores Islands, down near Luzon; and that as soldiers were discharged at Hiroshima they emigrated to Hawaii. Nor can we ignore the fact that throughout the Philippine Islands, in our outlying possessions, throughout all parts of America, in our forts, arsenals, shipyards, and particularly up and down the coast, along the Pacific, Japanese individuals have been diligent and active in spying out our elements of defense and mapping and charting our harbors and approaches from the rear to our coastwise forts and to our cities.

Neither can America ignore the fact that the most trifling incidents that occurred in San Francisco were seized upon and made great international affairs, nor can we ignore the fact that where Japanese citizens were involved in a simple matter of education the Japanese Government made a demand upon our Government that involved the invasion of the right of local self-government of the people of San Francisco, and that our Government by one means and another had to accede to this demand before regular negotiations could be resumed. This extraordinary attitude of Japan toward America stands out in broad contrast with the attitude assumed toward Great Britain when acts of a serious nature were committed in Vancouver, and when acts of exclusion were adopted in Australia and other British colonies. We can not ignore the fact that even now whatever exchange is made concerning the regulation of immigration, Japan always asserts that the question must be left to her, whereas it is in its very nature a domestic question, involving sovereignty within our own territory.

When we realize that in case of a war with Japan we could do nothing practically to harm that country, whereas we would be exposed on all sides to injury that can not be computed, it becomes a matter of absolute necessity for our peace and tranquillity that we should not only have a naval force in the Pacific as large as that of Japan, but that on account of our strategic disadvantage we should have a very substantial margin of superiority.

Let us examine the condition that now exists. We have sent 16 battle ships from the Atlantic. These have been joined by 2 more battle ships on the Pacific, making 18, together with 8 armored cruisers, making altogether 26 armored ships. Japan has 11 battle ships in commission and 11 armored cruisers, making 22 armored vessels. She will shortly put in commission the *Ibuki* and the *Kurama*, of 15,000 tons, and before many weeks will also put in commission the *Satsuma* and the *Aki*, ships of the *Dreadnought* type. Counting the first 2 ships as simply two units, making 24, we must make especial allowance for the great power of the 2 *Dreadnoughts*.

Our American ships are at least the equals of their contemporaries abroad; in fact, from the earliest day America has always surpassed Europe in shipbuilding possibilities for war purposes. In the olden day, where foreign navies had 38 guns on their frigates America had 44. In the latter days the *Oregon* had as much power as the *Royal Sovereign*, of nearly 50 per cent greater displacement. On an average, it can be said, roughly, that America has realized from 20 to 25 per cent more power than other nations upon contemporary vessels of equal size. But the Russo-Japanese war has revolutionized naval architecture. It was found that with the new systems of sighting and gun manipulation ships can remain off at long ranges and pound each other with their great guns. Consequently, the intermediate

caliber guns and rapid-fire guns on existing ships can not be counted on to render efficient service except in defense against torpedo attack. The system of spotting the fall of shots, and thus directing the fire, also increases the advantage that comes with the concentration of many guns upon a single ship. These Japanese *Dreadnaughts* carry four 12-inch and twelve 10-inch guns, or sixteen great guns each. The best of our ships only carry four great guns each. It is conservative to evaluate each of these Japanese *Dreadnaughts* as the equivalent of four of our average vessels. So that, adding these two *Dreadnaughts* to the Japanese fleet of 24 vessels, would give it the equivalent of 32 vessels, or already a substantial superiority over the American fleet.

We have thus stripped the Atlantic Ocean, and yet our whole fleet is not adequate to maintain a position of equality with the Japanese fleet.

In addition to these 2 *Dreadnaughts* now practically ready Japan has laid down 2 more, and has planned to lay down 7 more of these great ships, 4 of about 2,000 tons greater displacement than the present *Dreadnaughts* and 5 so-called armored cruisers of 18,500 tons. America has planned no new vessels for the Pacific Ocean. A conservative estimate would indicate that for the minimum basis of security and safety in the Pacific Ocean we should lay down at least 6 big ships a year until Japan concedes to us what is inevitable—the American control of the sea around which our possessions are scattered.

We thus find that our condition of national defense is precarious both in the Atlantic Ocean and in the Pacific Ocean, and we are driven to the realization that the defense may be necessary in both oceans at the same time. It is natural that a power in Europe preparing for war with America should seek an alliance with a power in Asia, or that a power in Asia preparing for war with America should seek an alliance with a power in Europe. Let us repeat that we must always assume that Japan has the most friendly feeling for America; but this is not inconsistent with our appreciating the significance of the fact that Japan has entered into an alliance offensive and defensive with Great Britain. It will be recalled that when Japan was preparing for war with Russia she negotiated a treaty with the British by which the British agreed that if a second power joined Russia that they would join Japan. It became clear that this first treaty was ample for all the purposes for which it was formed. It seems singular that Japan should have sought a new treaty with the British toward the close of the Russo-Japanese war, a treaty by which the two powers are to cooperate, no matter in what war either may become involved, if this war affects the interests of Great Britain in the regions of India and Japan in the regions of eastern Asia. Article 2 of this treaty reads as follows:

If by reason of an unprovoked attack or aggressive action, wherever arising, on the part of any other power or powers, either contractor be involved in war in defense of its territorial rights or special interests mentioned in the preamble (the preamble specifies the regions of eastern Asia and of India) the other contractor shall at once come to the assistance of its ally, and both parties will conduct war in common and make peace in mutual agreement with any power or powers involved in such war.

On the 28th of February the premier of the Dominion of Canada, Sir Wilfred Laurier, in discussing the Japanese immigration question, said in part, that "if war unfortunately occurred they might see the fleets of Japan and Great Britain united in the northern Pacific against

a common enemy," proceeding with the following words: "It is possible that we may see the fleet of Japan weighing anchor from the harbor of Vancouver for the protection of British interests to which we attach such vital importance."

Of course, a Japanese fleet would not proceed to Vancouver to weigh anchor to proceed to protect British interests in the regions of India. There can be but one inference from this interpretation of the Anglo-Japanese treaty.

Of course we at all times realize the deep bonds of friendship and ties of kindred that bind us to England, but we must nevertheless realize that England showed an inclination to lend itself to the Southern Confederacy during our civil war; that it showed a willingness to lend itself to Germany in a move to test the Monroe doctrine in Venezuela. Of course we realize that Canada in a sense is a hostage in case of war with England alone; but, on the other hand, when Great Britain has the cooperation of a power that could supply a vast army, while the British can supply the transports and keep the oceans clear, Canada, with its trans-Canadian railways and its bases in Halifax and Esquimaux becomes a base for the invasion of America.

Our proper investigation of the question of national defense involves the consideration of the possibility of a war with Great Britain and Japan combined, a war in which our flag would be wiped from the sea and in which the hordes of India and China, as well as Japan, could be thrown upon our shores.

The only rational basis for a proper national defense is for us to proceed to guarantee control of the sea against any nation of Asia in the Pacific, and against any nation of Europe in the Atlantic, both at the same time; whether we realize it or not this policy is inevitable. We may have to learn our lesson in the school of suffering, amidst humiliation and defeat, but we will yet learn the lesson that, for the elemental purposes of self-preservation in fulfilling the very first duty that we owe to ourselves, America must be supreme on the ocean. There is no escape. We must, as long as present conditions hold, prepare to create and maintain a navy equal to the combined navies of Great Britain and Japan.

But self-preservation is not the only duty that devolves upon a nation. In addition to the duties we owe to ourselves, we have duties that we owe to others. Many Americans may regret the new responsibilities that have come upon this nation, as a result of the war with Spain, but there is scarcely one American in the whole land who will fail to recognize our bounden duty to protect the peoples of Porto Rico, Cuba, Panama, Hawaii, Samoa, Alaska, Guam, and the Philippine Islands. It does not require any peculiar investigation to see at a glance that this bounden duty, universally recognized, can only be fulfilled through the control of the sea in the Atlantic and the Pacific.

Our forefathers placed upon us the obligations that go with the Monroe doctrine, by which we guarantee to the peoples of this hemisphere the right of local self-government. South America is farther from us than from the great nations that may desire to encroach upon its peoples, and the control of the ocean is the only possible way in which we can fulfill our duty under the Monroe doctrine.

As intimated above, we have founded peculiar institutions in this country. When the individual States gave up their own armaments the United States assumed the responsibility of protecting the indi-

vidual States in the free and full exercise of their rights reserved in the Constitution, including the right of local self-government. Last year our central Government could not guarantee to California and the other States of the Pacific coast, and to-day it could not guarantee Louisiana or the States of the Gulf and Atlantic coast, in the exercise of these rights.

Our country stands out alone in all the world between the monarchies of Europe and the monarchies of Asia as the embodiment of and champion of the rights of man, the rights upon which individual liberty is founded, and upon which we have built our free institutions. Our country is thus constituted the champion of these institutions and these rights for all the world, and we are the hope of the oppressed peoples in all lands. We must grant to those who flock to our shores the rights that go with liberty, but we must also guarantee to a part of the yellow peoples living in our islands on the confines of Asia the chance to work out a capacity for self-government, and we must be prepared to use a great influence in the councils of the nations that will tend more and more to bring about consideration for the rights of the weak and of the oppressed.

The greatest blessing that can now come to the world is the blessing of peace, and yet at this juncture all the nations of Europe have leaped to arms and the nations of Asia are now leaping to arms. Under the effect of the annihilation of space and the conquest of nature's forces, nations that are inclined to war have turned their peoples into armies. America is the one great nation of peace. Our country was founded by Quakers, Puritans, Huguenots—peacemakers. It has been developed by English, French, Dutch, German, Swedish, Italian, and other peoples, representing thus the coming together in reconciliation of the great nations of Europe. We have grown to our present stature of greatness in processes of agricultural, industrial, and commercial expansion, developing the continent along the lines of peace. In our daily lives we hate no people; we long to destroy no people; we have no territorial ambitions, no envies, and are living the life of peace.

In all the threat and danger of war the world over, by the close proximity now of the nations of the white race that have hated each other for ages, and by the coming together of the white race and the yellow race in the Pacific Ocean, the duty devolves upon America to reach out her hand and maintain the peace, a peace that can only come through the influence of the constraint of a great navy, until the time when an international organization has been created, an organization under whose efficient working America and all other nations could give up their navies.

The world needs the potential influence of a great American navy to maintain the open-door policy in China and prevent the invasion and seizure of that country, which would mean a firebrand among the nations. America demanded of Russia to retire from Manchuria, as she had promised, but there was nothing to back up that demand, and Russia remained, and this unwarranted policy brought on the Russo-Japanese war. If any nation now invades China and America makes a similar demand and is unable to back up that demand, such an occupation of China will set the world on fire. Thus the most vital interests, associated with the fundamental duty, self-preservation, and the most sacred obligations associated with our duties to the world all join to

demand the control of the ocean by America in the Atlantic and the Pacific alike.

Our investigation shows that at the present outlook 6 additional battle ships this year would be required for the Pacific and 6 additional battle ships this year for the Atlantic—a total of 12 for both oceans. Even if this should be cut square in half, on the supposition, which is not admissible, that the same vessels are available in both oceans, we would still have the necessity for 6 battle ships this year, and the recommendation of the Administration for 4 is an absolute bed rock minimum.

I know that many people who have not looked carefully into this matter stand against such a naval establishment for various reasons, all of which are utterly untenable. Many are opposed to an adequate programme because it is expensive. • The truth is, the more expensive the better, for while other nations have gained their advantage by taking men away from work and organizing armies, we have left our men at work and have the advantage of greater resources, so that we can afford the expense of a great navy, and they can not. The whole question is a relative one. The more expensive we make naval power, the quicker military nations that contest our rights to supremacy on the sea must drop behind. The more burdensome we make the carrying of great armaments, the quicker the military nations staggering under the loads will be willing to join us in evolving an adequate system of collective protection, which would enable us all to give up these armaments. The true way to hasten the disarmament of the nations is to speedily increase the burden of the armaments.

I realize perfectly that the revenues this year are not as large in comparison to expenditures as were the revenues last year, but, at the same time, there are over \$250,000,000 of available cash in the Treasury, in addition to \$150,000,000 reserve, and this is the time of all others when cash thus stored up should be put into circulation; not that I would advise the expenditure of a single dollar except in a most economical and a judicious way, but just now, as a financial policy, the Government should not talk hard times. On the contrary nothing would be wiser than to put out some of this money into the building of great ships, some on the Atlantic coast, some on the Pacific coast; some in Government navy-yards, some in private shipyards. This would strengthen public confidence and give employment to the idle. Expenditure in the building of ships encourages more diversified industries than expenditures in any other possible form of public work.

I appreciate that the "watchdogs of the Treasury" are doing a great service in scrutinizing all the proposed appropriations, but a watchdog should not repel friends who are coming to help along with enemies coming to loot.

There is an outlook for substantial saving in matters of administration and maintenance, but it can be said that every dollar put into new ships brings in a full return.

Some take the position that money would better be spent in other avenues, such as internal improvements; and constantly we hear Members state that they would rather see money put into rivers and harbors, into public buildings and the like, as though there were conflict between protection and these advantages. You might as well tell a great city not to have a police force, but to put its money into schools,

hospitals, and the like. The truth is, tranquillity and peace are necessary for the safe and effective exercise of all activities. America must have tranquillity in which to carry on her internal improvements and work out her destiny, and her first provision should be for insurance of tranquillity. Our Navy is, from a business point of view, a matter of insurance. We do not hesitate to insure our lives and our property. As a nation we should not hesitate to insure our country's security and tranquillity. The rate of insurance, having regard to the stupendous interests involved, as pointed out previously, becomes very small—less than one-tenth of 1 per cent—the cheapest insurance on earth.

Some have thought that because ships rapidly become obsolete it is waste of money to build them. The fact is the more rapidly they become obsolete the better it is for America. We can afford to rebuild new navies better than can the other nations. Let us try to have the navies of the world become obsolete as fast as possible, and let it be borne in mind that while our ships are becoming obsolete they are guaranteeing our peace. It is a simple question of a choice between peace with the Navy and war without it. There can be no question about this. We are a great peace, industrial nation; never have been aggressive toward any other nation, and never will desire to attack any other nation. If we have a great navy, no other nation will desire to attack us. If we do not have a great navy, we hold out an invitation and a temptation to the military nations on the other side of the oceans to attack us.

I pointed out above how if America had had an adequate navy, by prevailing upon Russia to withdraw from Manchuria we might have spared the world the war between Russia and Japan. It should now be pointed out that had we had an adequate navy we could have spared ourselves practically all of the foreign wars we have ever had.

I have heretofore referred to the importance of a margin of superiority. When the war with Spain was approaching our Navy appeared upon analysis to be about on an equality with the navy of Spain. In such cases each nation has confidence in its own navy. If we had had 3 or 4 battle ships in addition to the 4 we had, it is safe to say there would have been no war with Spain. The war with Spain has cost this country directly and indirectly upward of \$1,400,000,000. Fifteen million dollars put into battle ships in advance would have saved it all. The navy is a preventive against the disease of war, and as such it makes the best investment on earth for the nation.

Similarly, in 1812, if we had had a big navy the British would not have violated our rights on the high seas and there would have been no war, and Washington City would not have been burned.

The war before that with the Barbary pirates came about because we did not have a navy adequate to protect our commerce in the Straits of Gibraltar.

Before that, in 1800, France would not respect our rights as neutral, and war came as a consequence.

Without dwelling upon the blood poured out and the sorrow and demoralization incurred by these wars, the cold cost in dollars and cents has been a hundred times more than the cost of a navy that would have prevented them all. It is the same to-day; every dollar we put in ships, if we have sufficient to give us a margin of superiority in the two oceans, will save us hundreds and thousands of dollars that

would otherwise be lost in the worst of all diseases, the destroying disease of war.

Some have misgivings that launching upon a policy of naval expansion would produce bad effects upon our people, leading us into the paths of militarism, injuring our institutions. They forget that navies, as pointed out, do not produce militarism, and never have overthrown civil governments. The Navy at its present size does not produce any more militarism than it did when we had no battle ships, and it would not produce any more militarism if we had 50 battle ships. It is, as already shown, the great standing army in the midst of a people that produces the militarism. If America will have a great navy she can save herself from the possible necessity of having to have a great standing army that would be liable to produce militarism. If we have a great navy we can save ourselves from war, the supreme agency of militarism. Anyone sincerely desirous of saving our country from real dangers of militarism should join preeminently in building up a great navy to insure peace with all the world.

There are others who fear that if we quicken our pace the other nations will quicken their paces, which is not an accurate assumption, for the good reason that other nations quicken their paces anyhow, racing with each other, running as fast as they can already. America is the only nation that simply loiters along.

Some fear that our having a great navy might have a bad effect upon the rest of the world, on the assumption that we should set the rest of the world an example of strength toward righteousness. This is true, but it must be the righteousness founded on real strength. The trouble with the suffering world to-day is that the power on the high seas rests in the hands of the great military powers who do not hesitate to take advantage of their strength in dealing with the weak and the helpless. The best effect possible would be felt if our great nation of peace, that stands for righteousness and justice and brotherhood between peoples, should have a great navy and share more and more the power upon the high seas where the nations meet.

There are others who fear to trust America with all the power that goes with a great navy. They fear that she would be tempted to abuse the power, would put a chip on her shoulder and play the part of a bully. A moment's glance at the nature of our people shows this to be utterly unfounded. The average American citizen does not hate any other people, and it would be impossible to create a public opinion that would bring about the abuse of our power.

In other lands rulers and monarchs can cause nations to pursue the policy of a bully. Of course, there may be good monarchs as well as bad monarchs, but there never could be a bad American people. We all realize that the surest repository for liberty is our ninety millions of free men. Likewise the surest repository for power, while power is needed, is our ninety millions of peaceable men. These people who find difficulty in trusting their own country seem to take no exception to the fact that the British to-day have a navy nearly three times the size of our Navy or any other navy in the world. Can they trust the British with such power better than they could the Americans? Great Britain and all other great military powers have enemies and maintain their navies specifically for war. America has no enemy and maintains her Navy specifically for peace. Some nation must have the biggest

navy. Which ought it to be? Clearly, of all the nations it ought to be America, the peace nation!

For America to have a great navy at this juncture is the true policy to reach in the shortest time a system of international organization under which all nations can give up their navies. It is the true policy to get rid of navies. We are still living at the period where nations have to have navies, and as long as nations have to have navies America, the peace nation, ought to have the greatest navy.

There are some who confound this policy with that of advocating the rule of force. On the contrary, it is the policy which in the shortest time and in the most effective way can put an end to the reign of might and brute force. Many conceive that out among the nations it is like it is in a civilized community, where attending to one's own business and having righteousness for one's guide one is safe and secure. On the contrary, out among the nations there is no system of protection, no organized system of jurisprudence, and it is like it is on the frontier before courts have been established, before law is enforced, and even before sheriffs and constables and marshals are constituted. On such a frontier the cause of peace and righteousness and love is advanced by the peaceable people having power to keep the aggressive and malevolent in check until by combined action law becomes supreme.

There are some who fancy that this policy of having a great navy is not in keeping with the teachings of the Master. They think of the Master's reference to nonresistance and utterly misinterpret his teaching. The full teaching was "resist not evil," but "overcome evil with good." Harm not one's brother and strike not in anger is true Christian teaching, but to fold one's hands and let sin and wickedness prevail are utterly unchristian. This form of nonresistance is more in conformity with the teachings of Confucius. The Christian is a soldier. The Christian church is the church militant. If the other doctrine had prevailed, there would have been no martyrs—they would not have resisted the religious teachings of their day; there would have been no Reformation; there would have been no Magna Charta, no Bill of Rights, no Declaration of Independence; there would have been no America. All the world would be like parts of central Asia, where Confucianism reigns—would be slowly dying. The Master taught action and achievement, and at times his teaching took the form of an example of effectiveness by positive interference and even retribution. In the case of the fig tree on the side of the road, the Master in the presence of his disciples blighted the tree, root and branch, in spite of its fair leaves, because it had no fruit. When he expelled the money changers from the temple he did not stop to argue with them, but went prepared and with a scourge drove them out. All through his teachings this idea of action and achievement runs. When his disciples asked him as to who would go to heaven, he told them: "Not every one that saith unto me, Lord, Lord, shall enter the kingdom of heaven; but he that doeth the will of my Father which is in heaven." Not in abstract praying, but in tangible, effective working lies the true road toward salvation.

It may be remarked that at this critical juncture, when the world is drifting toward wars, that the failure on the part of America to build up the naval power adequate to keep peace in the Pacific Ocean will

be liable to entail not only a war between America and Japan, but ultimately a war between the white race and the yellow race, and engender a hatred and anger between the races that would prevent the carrying of the gospel of peace throughout Asia. The true policy for a Christian to advocate is to have his country, the great peace country, keep the peace secure and create the opportunity for the church to reach the myriads of Asia and carry the gospel "until every knee shall bow."

In conclusion, we recommend that 4 first-class battle ships should be authorized in this bill.

1. Because they are necessary to the security of our vital interests as exposed in the Atlantic Ocean.

2. Because they are necessary to the security of our vital interests as exposed in Pacific Ocean.

3. Because they are necessary if America would maintain her present relative position of world strength.

4. Because they are necessary for the maintenance of the Monroe doctrine.

5. Because they are necessary for the fulfillment of our duty of protection to helpless peoples in the islands of the seas.

6. Because they are necessary for the peaceful conduct of our system of government in guaranteeing to individual States the full and free exercise of their rights of local self-government as provided by our Constitution.

7. Because they are necessary for the security of our just rights in distant markets, and notably in the markets of China, and in maintaining the open-door policy of equal opportunity upon which alone can the peace of the world be preserved.

8. Because they are necessary to remove the temptation to aggression upon us on the part of other powers, and thus are necessary as a guaranty of peace.

9. Because they are necessary to permanently control the race question now arising on the Pacific, upon which control will hinge the chances for our peace and friendship with the natives of the yellow race and the ultimate reconciliation of the white race and the yellow race, upon which will hinge the peace of the world and the progress of civilization.

10. Because naval power is the true form of power for America to employ for national defense until the time when international organization is effected, as naval power does not entail militarism, and can give us complete security from the armies of the world while our people continue their peaceful occupations.

11. Because building up the Navy of America, the peace nation, we not only provide for peace at home, but contribute to the ascendancy of those world policies that contribute to peace abroad.

12. Because to cut down the number of vessels to two is to trifle with the margin of strength upon which the whole question of peace and war may hinge, thus endangering the very object for which the whole Navy exists.

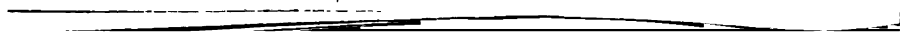
13. Because an adequate naval strength in guaranteeing peace, saves the stupendous costs of war and of pensions that follow war.

14. Because it is a wise financial and economic policy at this juncture to put out into needed shipbuilding, that stimulates all the industries,

part of the large cash balance carried as a surplus in the Treasury, thus giving employment to tens of thousands of unemployed, and strengthening the public confidence, and stimulating renewed activities in agriculture, industry, commerce, and finance.

15. Because it is in line with the real laws of progress, and would promote the cause of arbitration and peace upon which alone a Christian brotherhood can be built.

R. P. HOBSON.



[PUBLIC—No. 171.]

An Act Making appropriations for the naval service for the fiscal year ending June thirtieth, nineteen hundred and eight, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the following sums be, and they are hereby, appropriated, to be paid out of any money in the Treasury not otherwise appropriated, for the naval service of the Government for the year ending June thirtieth, nineteen hundred and eight, and for other purposes.

PAY OF THE NAVY.

Pay and allowances prescribed by law of officers on sea duty and other duty; officers on waiting orders; officers on the retired list; clerks to commandants of yards and stations; clerks to paymasters at yards and stations, general storekeepers, receiving ships, and other vessels; commutation of quarters for officers on shore not occupying public quarters, including boatswains, gunners, carpenters, sailmakers, warrant machinists, pharmacists, and mates, and also naval constructors and assistant naval constructors; for hire of quarters for officers serving with troops where there are no public quarters belonging to the Government, and where there are not sufficient quarters possessed by the United States to accommodate them, or commutation of quarters not to exceed the amount which an officer would receive were he not serving with troops, and the proper accounting officers of the Treasury are hereby authorized and directed to allow in the settlement of accounts of disbursing officers all payments made since November thirteenth, nineteen hundred and five, and prior to July first, nineteen hundred and seven, for commutation of quarters for officers on shore serving with troops and not provided with public quarters; pay of enlisted men on the retired list; extra pay to men reenlisting under honorable discharge; interest on deposits by men; pay of petty officers, seamen, landsmen, and apprentice seamen, including men in the engineers' force, and men detailed for duty with Naval Militia, and for the Fish Commission, thirty-six thousand men; and the number of enlisted men shall be exclusive of those undergoing imprisonment with sentence of dishonorable discharge from the service at expiration of such confinement; and as many warrant machinists as the President may from time to time deem necessary to appoint, not to exceed twenty in any one year; and two thousand five hundred apprentice seamen under training at training stations and on board training ships, at the pay prescribed by law, twenty-one million dollars.

Provided, That the Secretary of the Navy may, in his discretion, require the whole or a part of the bounty allowed upon enlistment to be refunded in cases where men are discharged during the first year of enlistment by request, for inaptitude, as undesirable, or for disability not incurred in line of duty.

PAY, MISCELLANEOUS.

For commissions and interest; transportation of funds; exchange; mileage to officers while traveling under orders in the United States, and for actual personal expenses of officers while traveling abroad under orders, and for traveling expenses of civilian employees, and for actual and necessary traveling expenses of midshipmen while proceeding from their homes to the Naval Academy for examination and appointment as midshipmen; for rent and furniture of buildings and offices not in navy-yards; expenses of courts-martial, prisoners and prisons, and courts of inquiry, boards of inspection, examining boards, with clerks' and witnesses' fees, and traveling expenses and costs; stationery and recording; expenses of purchasing paymasters' offices of the various cities, including clerks, furniture, fuel, stationery, and incidental expenses; newspapers and advertising; foreign postage; telegraphing, foreign and domestic; telephones, copying; care of library, including the purchase of books, photographs, prints, manuscripts, and periodicals; ferriage; tolls, and express fees; costs of suits; commissions, warrants, diplomas, and discharges; relief of vessels in distress; recovery of valuables from shipwrecks; quarantine expenses; reports; professional investigation; cost of special instruction at home and abroad, in maintenance of students and attachés and information from abroad, and the collection and classification thereof, and other necessary and incidental expenses, six hundred and seventy-five thousand dollars.

CONTINGENT, NAVY: For all emergencies and extraordinary expenses, exclusive of personal services in the Navy Department, or any of its subordinate bureaus or offices at Washington, District of Columbia, arising at home or abroad, but impossible to be anticipated or classified, to be expended on the approval and authority of the Secretary of the Navy, and for such purposes as he may deem proper, sixty-five thousand dollars: *Provided*, That the accounting officers of the Treasury are hereby authorized and directed to allow, in the settlement of accounts of disbursing officers involved, payments made under the appropriation "Contingent, Navy," to civilian employees appointed by the Navy Department for duty in and serving at naval stations maintained in the island possessions during the fiscal year nineteen hundred and eight.

BUREAU OF NAVIGATION.

TRANSPORTATION, RECRUITING, AND CONTINGENT: Transportation: For travel allowance of enlisted men discharged on account of expiration of enlistment; transportation of enlisted men and apprentice seamen at home and abroad, with subsistence and transfers en route, or cash in lieu thereof, transportation to their homes, if residents of the United States, of enlisted men and apprentice seamen discharged on medical survey, with subsistence and transfers en route, or cash in lieu thereof; transportation of sick or insane enlisted men and apprentice seamen to hospitals, with subsistence and transfers en route, or cash in lieu thereof; apprehension and delivery of deserters and stragglers, and for railway guides and other expenses incident to transportation, four hundred thousand dollars.

Recruiting: Expenses of recruiting for the naval service; rent of rendezvous and expenses of maintaining the same; advertising for

and obtaining men and apprentice seamen; actual and necessary expenses in lieu of mileage to officers on duty with traveling recruiting parties, one hundred and twenty-one thousand three hundred and forty dollars: *Provided*, That no part of this appropriation shall be expended in recruiting seamen, ordinary seamen, or apprentice seamen, unless a certificate of birth or written evidence, other than his own statement or statement of another based thereon, satisfactory to the recruiting officer, showing the applicant to be of age required by naval regulations, shall be presented with the application for enlistment.

Contingent: Advertising, telegraphing on public business, postage on letters sent abroad, ferriage, ice, continuous-service certificates, discharges, good-conduct badges, and medals for men and boys; transportation of effects of deceased officers and enlisted men of the Navy; books for training apprentice seamen and landsmen; maintenance of gunnery and other training classes; packing boxes and materials, and other contingent expenses and emergencies arising under cognizance of the Bureau of Navigation, unforeseen and impossible to classify, fifteen thousand dollars.

GUNNERY EXERCISES: Prizes, trophies, and badges for excellence in gunnery exercises and target practice; for the establishment and maintenance of shooting galleries, target houses, targets, and ranges; for hiring established ranges, and for transportation of civilian assistants and equipment to and from ranges, one hundred and twenty thousand dollars.

OUTFITS ON FIRST ENLISTMENT: Outfits for all enlisted men and apprentice seamen of the Navy on first enlistment, at not to exceed sixty dollars each, six hundred thousand dollars.

MAINTENANCE OF NAVAL AUXILIARIES: Pay, transportation, shipping, and subsistence of civilian officers and crews of naval auxiliaries and all expenses connected with naval auxiliaries employed in emergencies which can not be paid from other appropriations, five hundred thousand dollars.

NAVAL TRAINING STATION, CALIFORNIA: Maintenance of naval training station, Yerba Buena Island, California, namely: Labor and material; buildings and wharves; general care, repairs, and improvements of grounds, buildings, and wharves; wharfage, ferriage, and street-car fare; purchase and maintenance of live stock, and attendance on same; wagons, carts, implements, and tools, and repairs to same; fire engines and extinguishers; boats and gymnastic implements; models and other articles needed in instruction of apprentice seamen; printing outfit and materials, and maintenance of same; heating, lighting, and furniture; stationery, books, and periodicals; fresh water, ice, and washing; expressage; packing boxes and materials; postage and telegraphing; telephones, and all other contingent expenses; lectures and suitable entertainments for apprentice seamen; in all, fifty thousand dollars.

NAVAL TRAINING STATION, RHODE ISLAND: Maintenance of naval training station, Coasters Harbor Island, Rhode Island, namely: Labor and material; building and wharves; dredging channels; extending sea wall; repairs to causeway and sea wall; general care, repairs, and improvements of grounds, buildings, and wharves; wharfage, ferriage, and street-car fare; purchase and maintenance of live stock, and attendance on same; wagons, carts, implements, and tools, and repairs to same; fire engines and extinguishers; boats and gymnastic imple-

ments; models and other articles needed in instruction of apprentice seamen; printing outfit and materials, and maintenance of same; heating, lighting, and furniture; stationery, books, and periodicals; fresh water, ice, and washing; expressage; packing boxes and materials; postage and telegraphing; telephones, and all other contingent expenses; lectures and suitable entertainments for apprentice seamen; in all, seventy-one thousand dollars.

NAVAL TRAINING STATION, GREAT LAKES: Maintenance of naval training station: Labor and material; general care, repairs, and improvements of grounds, buildings, and piers; street-care fare; purchase and maintenance of live stock, and attendance on same; wagons, carts, implements, and tools, and repairs to same; fire extinguishers; heating, lighting, and furniture; stationery, books, and periodicals; ice and washing; expressage; packing boxes and materials; postage, telegraphing, and telephoning; and all other contingent expenses, twenty thousand dollars.

For clerical force in the office of commandant as follows: One clerk, at one thousand two hundred dollars; one clerk, at one thousand dollars; one draftsman, at one thousand five hundred dollars; one sub-inspector, at one thousand five hundred dollars; one foreman of laborers, at one thousand two hundred dollars; one messenger, at five hundred and forty dollars; in all, six thousand nine hundred and forty dollars.

In all, naval training station, Great Lakes, twenty-six thousand nine hundred and forty dollars.

NAVAL WAR COLLEGE, RHODE ISLAND: For maintenance of the Naval War College on Coasters Harbor Island, and care of grounds for same, twelve thousand three hundred dollars; one draftsman, at one thousand two hundred dollars per year; services of a lecturer on international law, one thousand dollars; services of civilian lecturers rendered at the War College, six hundred dollars; two copyists, at nine hundred dollars each per year; purchase of books of reference, four hundred dollars; one librarian, one thousand four hundred dollars per year;

In all, Naval War College, Rhode Island, eighteen thousand seven hundred dollars.

NAVAL HOME, PHILADELPHIA, PENNSYLVANIA: One superintendent of grounds, at seven hundred and twenty dollars; one steward, at seven hundred and twenty dollars; one matron, at four hundred and twenty dollars; one beneficiaries' attendant, at two hundred and forty dollars; one chief cook, at four hundred and eighty dollars; one assistant cook, at three hundred and sixty dollars; one assistant cook, at two hundred and forty dollars; one chief laundress, at one hundred and ninety-two dollars; five laundresses, at one hundred and sixty-eight dollars each; four scrubbers, at one hundred and sixty-eight dollars each; one head waitress, at one hundred and ninety-two dollars; eight waitresses, at one hundred and sixty-eight dollars each; one kitchen servant, at two hundred and forty dollars; eight laborers, at two hundred and forty dollars each; one stable keeper and driver, at three hundred and sixty dollars; one master at arms, at four hundred and eighty dollars; two house corporals, at three hundred dollars each; one barber, at three hundred and sixty dollars; one carpenter, at eight hundred and forty-five dollars; one painter, at eight hundred and forty-five dollars; one engineer for elevator and ma-

chinery, six hundred dollars; three laborers, at three hundred and sixty dollars each; three laborers, at three hundred dollars each; total for employees, fourteen thousand six hundred and fifty dollars. Miscellaneous: Water rent and lighting, two thousand one hundred dollars; cemetery, burial expenses, and headstones, eight hundred dollars; improvement of grounds, seven hundred and eighty dollars; repairs to buildings, boilers, furnaces, and furniture, six thousand seven hundred and forty-eight dollars; music in chapel, six hundred dollars; transportation of indigent and destitute beneficiaries to the Naval Home, one hundred dollars; support of beneficiaries, forty-seven thousand nine hundred and five dollars; total miscellaneous, fifty-nine thousand and thirty-three dollars;

In all, for Naval Home, seventy-three thousand six hundred and eighty-three dollars, which sum shall be paid out of the income from the naval pension fund: *Provided*, That for the performance of such additional services in and about the Naval Home as may be necessary, the Secretary of the Navy is authorized to employ, on the recommendation of the governor, beneficiaries in said Home, whose compensation shall be fixed by the Secretary and paid from the appropriation for the support of the Home.

BUREAU OF ORDNANCE.

ORDNANCE AND ORDNANCE STORES: For procuring, producing, preserving, and handling ordnance material; for the armament of ships; for fuel, material, and labor to be used in the general work of the Ordnance Department; for watchmen at magazines, powder factories, and powder depots; for furniture in ordnance buildings at navy-yards and stations; for maintenance of the proving ground and powder factory, and for target practice, four million dollars: *Provided*, That no part of this appropriation shall be expended for the purchase of shells or projectiles except for shells or projectiles purchased in accordance with the terms and conditions of proposals submitted by the Secretary of the Navy to all of the manufacturers of shells and projectiles and upon bids received in accordance with the terms and requirements of such proposals. All shells and projectiles shall conform to the standards prescribed by the Secretary of the Navy.

Ammunition and other supplies for new ships, seven hundred and fifty thousand dollars.

Purchase and manufacture of smokeless powder, five hundred thousand dollars.

Machine tools for navy-yard, Boston, thirty-nine thousand dollars.

FOR NAVAL GUN FACTORY, WASHINGTON, DISTRICT OF COLUMBIA: New and improved machinery for existing shops, one hundred and fifty thousand dollars;

For modernizing the battery of the Iowa, thirty-six thousand dollars.

For modernizing the batteries of the Monterey and the Monadnock, twenty thousand dollars.

For providing new turret sights for the four monitors of the Arkansas class, sixteen thousand dollars.

New battery for the Brooklyn, one hundred and seventy-seven thousand two hundred dollars.

For completing the work of modifying four-inch forty-caliber mounts, and providing new sights; and for modifying five-inch forty-

caliber mounts, and providing new sights for same, one hundred thousand dollars.

For fire-control instruments for nineteen battle ships and twelve armored cruisers; for fire-control instruments for four monitors and twenty-five cruisers, three hundred thousand dollars.

For the manufacture, purchase, repair, and maintenance of a reserve stock of mines and mine appliances, one hundred thousand dollars.

For fifty eighteen-inch torpedoes; converting destroyers to modern boats; converting three and fifty-five one-hundredths meter boats to five-meter boats, three hundred thousand dollars.

RESERVE AMMUNITION: Toward the accumulation of a reserve supply of ammunition, four million dollars: *Provided*, That no part of this appropriation shall be expended for the purchase of shells or projectiles except for shells or projectiles purchased in accordance with the terms and conditions of proposals submitted by the Secretary of the Navy to all of the manufacturers of shells and projectiles and upon bids received in accordance with the terms and requirements of such proposals. All shells and projectiles shall conform to the standards prescribed by the Secretary of the Navy.

RESERVE GUNS FOR SHIPS OF THE NAVY: Purchase and manufacture of reserve guns for ships of the Navy, seven hundred and fifty thousand dollars.

RESERVE TORPEDOES AND APPLIANCES: For the purchase or manufacture of reserve torpedoes and appliances, two hundred and fifty thousand dollars: *Provided*, That of this amount not more than one hundred and fifty-five thousand dollars shall be used for the construction and equipment of a torpedo factory at the torpedo station at Newport, Rhode Island.

TORPEDO STATION, NEWPORT, RHODE ISLAND: For labor, material, freight and express charges; general care of and repairs to grounds, buildings, and wharves; boats, instruction, instruments, tools, furniture, experiments, and general torpedo outfits, and new smokestack and flues for boilers, seventy thousand dollars.

ARMING AND EQUIPPING NAVAL MILITIA: For arms, accouterments, signal outfits, boats and their equipment, repairs to vessels loaned to States in accordance with law, fuel and clothing, and the printing or purchase of necessary books of instruction for the Naval Militia of the various States, under such regulations as the Secretary of the Navy may prescribe, sixty thousand dollars.

REPAIRS, BUREAU OF ORDNANCE: For necessary repairs to ordnance buildings, magazines, gun parks, boats, lighters, wharves, machinery, and other items of like character, thirty thousand dollars.

MISCELLANEOUS, BUREAU OF ORDNANCE: For miscellaneous items, namely: Advertising, cartage and express charges, expenses of light and water at magazines and stations; tolls, ferriage, foreign postage, and telegrams to and from the Bureau, technical books, and incidental expenses attending inspection of ordnance material, twenty thousand dollars.

CIVIL ESTABLISHMENT, BUREAU OF ORDNANCE: Navy-yard, Portsmouth, New Hampshire: For one writer, at one thousand dollars;

Navy-yard, Boston, Massachusetts: For one clerk, at one thousand two hundred dollars;

Navy-yard, New York, New York: For one clerk, at one thousand four hundred dollars;

Navy-yard, League Island, Pennsylvania: For one clerk, at one thousand two hundred dollars;

Navy-yard, Washington, District of Columbia: For one chemist, at two thousand five hundred dollars; two foremen of Gun Factory, at two thousand five hundred dollars each; one ordnance engineer and computing draftsman, three thousand dollars; one chief clerk, at one thousand six hundred dollars; one clerk, at one thousand four hundred dollars; one clerk, at one thousand two hundred dollars; one clerk, at one thousand one hundred dollars; three writers, at one thousand and seventeen dollars and twenty-five cents each; one draftsman, at one thousand eight hundred dollars; three draftsmen, at one thousand and eighty-one dollars each; one assistant draftsman, at seven hundred and seventy-two dollars; two copyists, at seven hundred and twenty dollars each; one telegraph operator and copyist, at one thousand dollars; in all, twenty-seven thousand one hundred and six dollars and seventy-five cents;

Navy-yard, Norfolk, Virginia: For one clerk, at one thousand two hundred dollars;

Navy-yard, Mare Island, California: For one clerk, at one thousand two hundred dollars;

Naval proving ground, Indian Head, Maryland: For one clerk, at one thousand two hundred dollars; one foreman of powder factory, two thousand dollars; one chemist for powder factory, two thousand five hundred dollars; one assistant chemist for powder factory, two thousand dollars;

Torpedo station, Newport, Rhode Island: For one chemist, at two thousand five hundred dollars; one clerk, at one thousand two hundred dollars; one draftsman, at one thousand five hundred dollars; in all, five thousand two hundred dollars;

In all, civil establishment, Bureau of Ordnance, forty-seven thousand two hundred and six dollars and seventy-five cents; and no other fund appropriated by this Act shall be used in payment for such service.

BUREAU OF EQUIPMENT.

EQUIPMENT OF VESSELS: For hemp, wire, iron, and other material for the manufacture of cordage, anchors, cables, galleys, and chains; specifications for purchase thereof shall be so prepared as shall give fair and free competition; canvas for the manufacture of sails, awnings, hammocks, and other work; water for all purposes on board naval vessels, including the expenses of transportation and storage of the same; stationery for chaplains and for commanding and navigating officers of ships, equipment officers on shore and afloat, and for the use of courts-martial on board ship; the removal and transportation of ashes from ships of war; interior appliances and tools for equipment buildings in navy-yards and naval stations; supplies for seamen's quarters; and for the purchase of all other articles of equipment at home and abroad, and for the payment of labor in equipping vessels and manufacture of equipment articles in the several navy-yards; all pilotage and towage of ships of war; canal tolls, wharfage, dock and port charges, and other necessary incidental expenses of a similar nature; services and materials in repairing, correcting, adjusting, and testing compasses on shore and on board ship; nautical and astronomical instruments, and repairs to same; libraries for ships of war, pro-

fessional books and papers, and drawings and engravings for signal books; naval signals and apparatus, namely, signals, lights, lanterns, rockets, and running lights; compass fittings, including binnacles, tripods, and other appendages of ships' compasses; logs and other appliances for measuring the ship's way, and leads and other appliances for sounding; lanterns and lamps, and their appendages for general use on board ship for illuminating purposes, and oil and candles used in connection therewith; service and supplies for coast-signal service; bunting and other materials for making and repairing flags of all kinds; photographs, photographic instruments, and materials; musical instruments and music; installing, maintaining, and repairing interior and exterior signal communications and all electrical appliances of whatsoever nature on board naval vessels, except range finders, battle order and range transmitters and indicators, and motors and their controlling apparatus used to operate the machinery belonging to other bureaus, three million two hundred and fifty thousand dollars.

COAL AND TRANSPORTATION: Purchase of coal and other fuel for steamers' and ships' use, and other equipment purposes, including expenses of transportation, storage, and handling the same, and for the general maintenance of naval coaling depots and coaling plants, four million one hundred and fifty thousand dollars.

CONTINGENT, BUREAU OF EQUIPMENT: Express charges on equipment stores, packing boxes and materials, printing, advertising, telegraphing, books, and models; stationery; furniture for equipment of offices in navy-yards; postage on letters sent abroad; ferriage, ice, and emergencies arising under cognizance of the Bureau of Equipment unforeseen and impossible to classify, fifteen thousand dollars.

OCEAN AND LAKE SURVEYS: Hydrographic surveys, and for the purchase of nautical books, charts, and sailing directions, and express charges on the same, seventy-five thousand dollars.

CIVIL ESTABLISHMENT, BUREAU OF EQUIPMENT: Navy-yard, Portsmouth, New Hampshire: For one clerk, at one thousand two hundred dollars; one writer, nine hundred and fifty dollars; in all, two thousand one hundred and fifty dollars;

Navy-yard, Boston, Massachusetts: For one superintendent of ropewalk, at two thousand dollars; one clerk, at one thousand four hundred dollars; one clerk, at one thousand three hundred dollars; one clerk, at one thousand two hundred dollars; two writers, at nine hundred and fifty dollars each; one civil superintendent of chain shop, two thousand dollars; one civil superintendent of anchor shop, two thousand dollars; in all, eleven thousand eight hundred dollars;

Navy-yard, New York, New York: For one clerk, at one thousand four hundred dollars; one clerk, at one thousand two hundred dollars; two writers, at nine hundred and fifty dollars each; one clerk in charge of distribution of books, at one thousand two hundred dollars; in all, five thousand seven hundred dollars;

Navy-yard, League Island, Pennsylvania: For one clerk, at one thousand four hundred dollars; one clerk, at one thousand dollars; in all, two thousand four hundred dollars;

Navy-yard, Norfolk, Virginia: For two clerks, at one thousand two hundred dollars each; one writer, at nine hundred and fifty dollars; in all, three thousand three hundred and fifty dollars;

Navy-yard, Mare Island, California: For one clerk, at one thousand

two hundred dollars; one clerk, at one thousand dollars; one writer, at nine hundred and fifty dollars; in all, three thousand one hundred and fifty dollars;

Navy-yard, Washington, District of Columbia: For one clerk, who shall also perform the clerical duties for the board of labor at said navy-yard, one thousand six hundred dollars;

Navy-yard, Pensacola, Florida: One clerk, one thousand dollars;

Naval station, Cavite, Philippine Islands: One master electrician, one thousand eight hundred and seventy-eight dollars; one clerk, one thousand dollars; in all, two thousand eight hundred and seventy-eight dollars;

Naval station, Port Royal, South Carolina: One clerk, one thousand dollars;

Naval station, Key West, Florida: One clerk, one thousand dollars;

Navy-yard, Puget Sound, Washington: One clerk, one thousand dollars; one clerk, one thousand dollars; in all, two thousand dollars;

In all, civil establishment, Bureau of Equipment, thirty-eight thousand and twenty-eight dollars.

BUREAU OF YARDS AND DOCKS.

MAINTENANCE OF YARDS AND DOCKS: For general maintenance of yards and docks, namely: For books, maps, models, and drawings; purchase and repair of fire engines; fire apparatus and plants; machinery; purchase and maintenance of oxen, horses, and driving teams; carts, timber wheels, and all vehicles for use in the navy-yards; tools and repairs of the same; postage on letters and other mailable matter on public service sent to foreign countries, and telegrams; stationery; furniture for Government houses and offices in navy-yards; coal and other fuel; candles, oil, and gas; attendance on light and power plants; cleaning and clearing up yards and care of buildings; attendance on fires, lights, fire engines, and fire apparatus and plants; incidental labor at navy-yards; water tax, tolls, and ferriage; pay of watchmen in navy-yards; awnings and packing boxes, and advertising for yards and docks and other purposes; and for rent of wharf and storehouse at Erie, Pennsylvania, for use and accommodation of United States steamer Wolverine, and for pay of employees on leave, nine hundred and fifty thousand dollars.

CONTINGENT, BUREAU OF YARDS AND DOCKS: For contingent expenses that may arise at navy-yards and stations, thirty thousand dollars.

CIVIL ESTABLISHMENT, BUREAU OF YARDS AND DOCKS: Navy-yard, Portsmouth, New Hampshire: For one clerk, at one thousand four hundred dollars; one mail messenger, at two dollars per diem, including Sundays; one messenger at six hundred dollars; one foreman laborer and head teamster, at four dollars per diem, including Sundays; one janitor, at six hundred dollars; one pilot, at three dollars per diem, including Sundays; one draftsman, at four dollars per diem; one electrician, one thousand four hundred dollars; one stenographer and typewriter, one thousand dollars; one writer, nine hundred dollars; one telegraph operator and clerk, nine hundred dollars; one draftsman, one thousand two hundred dollars; one master of tugs, one thousand two hundred dollars; in all, thirteen thousand seven hundred and fifty dollars.

Navy-yard, Boston, Massachusetts: For one clerk, at one thousand four hundred dollars; one foreman laborer, at four dollars per diem; one messenger to commandant, at two dollars per diem; one messenger, at two dollars per diem; one mail messenger, at two dollars per diem, including Sundays; one writer, at one thousand and seventeen dollars and twenty-five cents; one draftsman, at five dollars per diem; one master of tugs, at one thousand two hundred dollars; one electrician, at one thousand four hundred dollars; one stenographer and typewriter, at three dollars and twenty-eight cents per diem; one bookkeeper, one thousand two hundred dollars; in all, twelve thousand and sixty-one dollars and seventeen cents.

Navy-yard, New York, New York: For one clerk, at one thousand four hundred dollars; one time clerk, one thousand and seventeen dollars and twenty-five cents; one yard pilot, two thousand dollars; two masters of tugs, at one thousand five hundred dollars each; two writers, at one thousand eight hundred dollars; one foreman-laborer, at four dollars and fifty cents per diem; one mail messenger, at two dollars per diem, including Sundays; two messengers, at two dollars and twenty-five cents per diem each; one draftsman, at five dollars per diem; one quartermaster, at three dollars per diem; one superintendent of teams, or quartermaster, at four dollars per diem, including Sundays; one messenger to commandant, at two dollars and twenty-five cents per diem, including Sundays; one messenger, yards and docks, at two dollars and twenty-five cents per diem; one stenographer and typewriter, at three dollars and twenty-six cents per diem; one electrician, at one thousand four hundred dollars; one bookkeeper, or accountant, at one thousand two hundred dollars; one master of tugs, one thousand five hundred dollars; in all, twenty-three thousand one hundred and ninety-six dollars and eighty-nine cents;

Naval station, Sacketts Harbor, New York: For one ship keeper, at three hundred and sixty-six dollars per annum;

Navy-yard, League Island, Pennsylvania: For one clerk, at one thousand four hundred dollars; one writer and telegraph operator, at one thousand dollars; one messenger, at two dollars per diem; one foreman laborer, at four dollars per diem; one master of tugs, at one thousand two hundred dollars; one draftsman, at five dollars per diem; one electrician, at one thousand four hundred dollars; one mail messenger, at two dollars per diem, including Sundays; one master of tugs, at one thousand dollars; one foreman joiner, at four dollars per diem; one stenographer and typewriter, civil engineer's office, one thousand dollars; in all, twelve thousand four hundred and forty-two dollars;

Navy-yard, Washington, District of Columbia: For one clerk, at one thousand four hundred dollars; one messenger, at two dollars per diem; one foreman laborer, at four dollars per diem; one electrician, at one thousand four hundred dollars; one writer, at one thousand and seventeen dollars and twenty-five cents; one time clerk, nine hundred dollars; in all, six thousand six hundred dollars and sixty-nine cents;

Navy-yard, Norfolk, Virginia: For one clerk, at one thousand four hundred dollars; one writer, at one thousand and seventeen dollars and twenty-five cents; one writer, at one thousand dollars; one foreman laborer, at four dollars per diem; one electrician, at one thousand four hundred dollars; one mail messenger, at two dollars per diem, including Sundays; two messengers, at two dollars per diem each; one pilot, at nine hundred dollars; one master of tugs, at one thousand two hun-

dred dollars; one draftsman, one thousand five hundred dollars; one bookkeeper, one thousand two hundred dollars; one foreman mechanic, at four dollars and twenty-four cents per diem; one foreman of teams, at two dollars and twenty-four cents per diem; one messenger and janitor, civil engineer's office, at two dollars per diem, including Sundays; one stenographer and typewriter, civil engineer's office, one thousand two hundred dollars; in all, sixteen thousand eight hundred and twenty-seven dollars and ninety-seven cents;

Navy-yard, Pensacola, Florida: For one clerk, at one thousand two hundred dollars; one mail messenger, at two dollars per diem, including Sundays; one electrician, at one thousand four hundred dollars; one draftsman, at four dollars per diem; one foreman laborer, at three dollars and fifty-two cents per diem; one stenographer, typewriter, and telegraph operator, at three dollars and four cents per diem; one writer, at two dollars and eighty cents per diem; in all, seven thousand five hundred and twenty-seven dollars and four cents;

Naval station, Port Royal, South Carolina: One messenger and janitor, one dollar and fifty cents per diem; one telegraph operator, including Sundays, two dollars per diem; in all, one thousand two hundred and three dollars;

Naval station, Key West, Florida: For one mail messenger, at six hundred dollars; one clerk, at one thousand four hundred dollars; one messenger and janitor, at one dollar and seventy-six cents per diem, including Sundays; in all, two thousand six hundred and forty-four dollars and sixteen cents;

Naval station, New Orleans, Louisiana: For one clerk, at one thousand two hundred dollars; one rodman and inspector, at three dollars per diem; one messenger and janitor, at one dollar and fifty cents per diem, including Sundays; one stenographer and typewriter, civil engineer's office, at nine hundred and fifty dollars; one messenger and janitor, civil engineer's office, at two dollars per diem, including Sundays; one foreman laborer, at one thousand two hundred dollars; one draftsman, at one thousand five hundred dollars; one messenger, commandant's office, at two dollars per diem, including Sundays; in all, seven thousand eight hundred and five dollars;

Navy-yard, Mare Island, California: For one clerk, at one thousand four hundred dollars; one writer, at one thousand and seventeen dollars and twenty-five cents; one foreman mason, at six dollars per diem; one foreman laborer, at five dollars and fifty cents per diem; one pilot, at one thousand five hundred dollars per annum; one draftsman, at five dollars per diem; one mail messenger, at two dollars per diem, including Sundays; one messenger, at two dollars per diem; one electrician, at one thousand four hundred dollars; one foreman joiner, at four dollars and fifty-six cents per diem; one telegraph operator, at three dollars and twenty-eight cents per diem; one clerk in civil engineer's office, at one thousand dollars; in all, fifteen thousand three hundred dollars and one cent.

Navy-yard, Puget Sound, Washington: One clerk, at one thousand two hundred dollars; one draftsman, at five dollars per diem; one messenger and janitor, at one dollar and seventy-six cents per diem, including Sundays; one master of tugs, at one thousand two hundred dollars; one copyist, at nine hundred dollars; one electrician, at one thousand two hundred dollars; one writer and telegraph operator, at nine hundred dollars; one stenographer and typewriter, civil engi-

neer's office, at one thousand dollars; one writer, at nine hundred dollars; one messenger, at one dollar and seventy-six cents per diem; one foreman carpenter, at four dollars and fifty cents per diem, one thousand four hundred and four dollars; in all, eleven thousand four hundred and seventy-nine dollars and eighty cents.

Naval station, San Juan, Porto Rico: One clerk, one thousand two hundred dollars; one writer, commandant's office, nine hundred and sixty dollars; one mail messenger, four hundred and twenty dollars; one foreman, one thousand one hundred dollars; in all, three thousand six hundred and eighty dollars.

Naval station, Hawaii: One writer, at one thousand and seventeen dollars and twenty-five cents per annum; one messenger, at two dollars per diem, including Sundays; in all, one thousand seven hundred and forty-nine dollars and twenty-five cents.

Naval station, Cavite, Philippine Islands: One clerk, one thousand two hundred dollars; one time clerk, four hundred and eighty dollars; one writer, three hundred and sixty dollars; one messenger, two hundred and forty dollars; one messenger, one hundred and eighty dollars; one clerk, commandant's office, seven hundred and twenty dollars; one messenger, commandant's office, one hundred and eighty dollars; in all, three thousand three hundred and sixty dollars.

Naval station, Guam: One clerk, one thousand six hundred dollars; one foreman machinist, one thousand six hundred dollars; one messenger and janitor, six hundred dollars; in all, three thousand eight hundred dollars.

Navy Yard, Charleston, South Carolina: Commandant's office: One stenographer and typewriter, at three dollars and four cents per diem; one writer and telegraph operator, at two dollars per diem, including Sundays; one mail messenger, at two dollars per diem, including Sundays; one messenger and janitor, at one dollar and fifty-two cents per diem, including Sundays. Civil engineer's office: One clerk, at one thousand three hundred dollars; one stenographer, at two dollars and eighty cents per diem; one messenger, at one dollar and fifty-two cents per diem; in all, five thousand six hundred and thirty-one dollars and thirty-six cents.

In all, civil establishment, Bureau of Yards and Docks, one hundred and forty-nine thousand four hundred and twenty-four dollars and thirty-four cents, and no other fund appropriated by this Act shall be used in payment for such service.

PUBLIC WORKS, BUREAU OF YARDS AND DOCKS.

NAVY-YARD, PORTSMOUTH, NEW HAMPSHIRE: Railroad and rolling stock, two thousand dollars; sewer system, extension, two thousand dollars; quay walls, to extend, twenty thousand dollars; grading, to continue, fifteen thousand dollars; central power plant, to complete, sixty thousand dollars; blasting in front of quay wall (to cost one hundred and ten thousand dollars), fifty thousand dollars; naval prison laundry, three thousand dollars; naval prison cooking and baking plant, three thousand two hundred dollars; naval prison, furniture and fittings, eight thousand five hundred dollars; naval prison, administration building, to complete, ten thousand dollars; pattern shop for steam engineering, to complete, sixty-one thousand two hundred dollars; track for forty-ton crane, extension, ten thousand dollars, the

limit of cost to be forty-six thousand eight hundred dollars; in all, two hundred and forty-four thousand nine hundred dollars.

NAVY-YARD, BOSTON, MASSACHUSETTS: Paving, to continue, twenty thousand dollars; third floor, building numbered one hundred and seven, six thousand dollars; electric plant, extensions, twenty-five thousand dollars; heating system, extensions, seventeen thousand five hundred dollars; railroad rolling stock, three thousand dollars; telephone system, extensions, one thousand dollars; railroad system extensions, two thousand dollars; repairs to dry dock numbered one, fifteen thousand dollars; completing building numbered one hundred and eight, five thousand dollars; salt water flushing for dry dock numbered two, two thousand five hundred dollars; water-closet between dry docks, ten thousand dollars; improving rope walk building, ten thousand dollars; improvements to naval prison, two thousand five hundred dollars; improvements to building numbered forty-two, nine thousand dollars; in all, navy-yard, Boston, one hundred and twenty-eight thousand five hundred dollars.

NAVY-YARD, NEW YORK, NEW YORK: Electric plant, extensions, twenty-five thousand dollars; underground conduits, extension, fifteen thousand dollars; heating system, extensions, twenty thousand dollars; electric motors for pump well valves, seven thousand dollars; electric elevators, ten thousand dollars; central power plant, to complete, one hundred and forty thousand dollars; for side walk on Flushing avenue and Navy street in front of the Navy-Yard, ten thousand eight hundred dollars; railroad equipment, additional, five thousand dollars; railroad system, extensions, ten thousand dollars; sewers and drains, ten thousand dollars; cement storehouse, eleven thousand dollars; in all, navy-yard, New York, New York, two hundred and sixty-three thousand eight hundred dollars.

NAVY-YARD, LEAGUE ISLAND, PENNSYLVANIA: To continue retaining wall about reserve basin, fifty thousand dollars; sea wall, extension, fifty thousand dollars; berth for receiving ship, to extend, twenty-five thousand five hundred dollars; in all, navy-yard, League Island, one hundred and twenty-five thousand five hundred dollars.

NAVY-YARD, WASHINGTON, DISTRICT OF COLUMBIA: Paving, to extend, ten thousand dollars; grading, to extend, ten thousand dollars; quay wall, twenty-five thousand dollars; railroad bridge and tracks, forty thousand dollars; in all, navy-yard, Washington, eighty-five thousand dollars.

NAVY-YARD, CHARLESTON, SOUTH CAROLINA: Stone and concrete dry dock, to complete, fifty thousand dollars; grading and paving, fifteen thousand dollars; railroad system, extensions, fifteen thousand dollars; dredging, ninety-eight thousand dollars; conduit system, extension, ten thousand dollars; sewer system, extension, five thousand dollars; central power plant, thirty thousand dollars; railroad equipment, five thousand dollars; quay wall, thirty-four thousand dollars; heating system, extensions, fifteen thousand dollars; electric system, extension, ten thousand dollars; in all, navy-yard, Charleston, South Carolina, two hundred and eighty-seven thousand dollars.

NAVY-YARD, NORFOLK, VIRGINIA: Paving and grading, additional, ten thousand dollars; railroad tracks, extensions, eight thousand dollars; rebuilding coal wharf, twenty-five thousand dollars; telephone system, extensions, two thousand five hundred dollars; electric plant, extensions, twenty thousand dollars; machine shop for steam engineer-

ing, to complete, twenty-five thousand dollars; concrete and granite dry dock, to complete, one hundred thousand dollars; improvements to one-hundred-ton shears, to complete, twenty thousand dollars; repairs, buildings, Saint Helena, twenty-five thousand dollars; central power plant, one hundred and thirty thousand dollars; in all, navy-yard, Norfolk, Virginia, three hundred and sixty-five thousand five hundred dollars.

NAVAL STATION, KEY WEST, FLORIDA: Dredging and filling in, twenty-five thousand dollars; grading and paving, five thousand dollars; sidewalks along outside station wall on Government property, two thousand five hundred dollars; water systems, extensions, two thousand dollars; removing steel tanks from Dry Tortugas, ten thousand dollars; in all, navy-yard, Key West, Florida, forty-four thousand five hundred dollars.

NAVY-YARD, MARE ISLAND, CALIFORNIA: Railroad system, extension, five thousand dollar; electric-plant system, extension, ten thousand dollars; sewer system, extensions, three thousand dollars; heating system, extension, five thousand dollars; telephone system, extensions, one thousand dollars; electric capstans for dry dock numbered one, ten thousand dollars; extension of building numbered one hundred and nineteen, block and cooper shop, fifteen thousand dollars; improvements to building numbered ninety-six, shipfitters' shop, three thousand dollars; improvements to buildings numbered sixty-nine and seventy-one, twenty thousand dollars; improvements to coal cylinders, seven thousand five hundred dollars; workshop for electrical class, three thousand dollars; channel moorings, Mare Island Strait, nine thousand dollars; enlarging and moving dispensary building, six thousand dollars; improvements to naval prison, fifty thousand dollars; central light and power plant at Mare Island Navy-Yard, California, one hundred thousand dollars; removal of office building numbered one hundred and three, one thousand dollars; in all, navy-yard, Mare Island, two hundred and forty-eight thousand five hundred dollars.

NAVY-YARD, PUGET SOUND, WASHINGTON: To continue grading, ten thousand dollars; electric-light plant, extensions, six thousand dollars; water system, extensions, five thousand dollars; heating system, extensions, five thousand dollars; roads and walks, extensions, two thousand five hundred dollars; stone and concrete dry dock, to continue, two hundred thousand dollars; quay wall, extensions, thirty thousand dollars; in all, navy-yard, Puget Sound, Washington, two hundred and fifty-eight thousand five hundred dollars.

NAVY-YARD, PENSACOLA, FLORIDA: Machinery for central power plant, thirty-five thousand dollars; conduit system, two thousand five hundred dollars; improvements to storehouse, building numbered twenty-five, five thousand dollars; and to enable the Secretary of the Navy to repair and reconstruct, where necessary, the buildings, wharves, and other public works recently damaged by hurricane at the navy-yard, Pensacola, two hundred thousand dollars; in all, navy-yard, Pensacola, two hundred and forty-two thousand five hundred dollars.

NAVAL STATION, NEW ORLEANS, LOUISIANA: Improvement of water front, twenty-five thousand dollars; levee improvement and grading, twenty-five thousand dollars; central electric light and power plant, extension, fifty thousand dollars; railroad system, five thousand dollars; drainage system, ten thousand dollars; central heating plant, eighteen thousand dollars; paving, ten thousand dollars; fitting up yard build-

ings eight and sixteen, four thousand three hundred dollars; dispensary building, nine thousand dollars; in all, navy-yard, New Orleans, one hundred and fifty-six thousand three hundred dollars.

NAVAL STATION, OLONGAPO, PHILIPPINE ISLANDS: Water system, forty thousand dollars; quay walls, fifty thousand dollars; in all, ninety thousand dollars.

NAVAL STATION, ISLAND OF GUAM: Dredging, seven thousand five hundred dollars; extension of naval-station roads, five thousand dollars; water supply system, ten thousand dollars; in all, twenty-two thousand five hundred dollars.

NAVAL STATION, HAWAII: Grading, curbing, and fencing, one thousand one hundred dollars; fender timbers, piers one and two, two thousand dollars; in all, three thousand one hundred dollars.

NAVAL STATION, CAVITE, PHILIPPINE ISLANDS: Extension of building numbered sixty-four, seven thousand five hundred dollars; boat-storage shed, four thousand dollars; improvement of naval prison, one thousand five hundred dollars; in all, thirteen thousand dollars.

NAVAL STATION, CULEBRA, PORTO RICO: Clearing and grading, one thousand five hundred dollars; fencing, five hundred dollars; in all, two thousand dollars.

NAVAL STATION, TUTUILA: Barracks for native guard, five thousand dollars; operating room, one thousand dollars; in all, six thousand dollars.

GOVERNMENT LANDING, NEWPORT, RHODE ISLAND: Steel floats, fences, dredging, and general improvements, seven thousand eight hundred and forty dollars.

PLANS AND SPECIFICATIONS FOR PUBLIC WORKS: Plans and estimates required by section thirty-six hundred and sixty-three, Revised Statutes, and plans and specifications for public works, thirty thousand dollars.

REPAIRS AND PRESERVATION AT NAVY-YARDS: For repairs and preservation at navy-yards and stations, five hundred thousand dollars.

Total public works, navy-yards and stations, three million one hundred and twenty-four thousand nine hundred and forty dollars.

PUBLIC WORKS UNDER THE SECRETARY OF THE NAVY.

BUILDINGS AND GROUNDS, NAVAL ACADEMY: To complete the construction of buildings, and for other necessary improvements at the Naval Academy, Annapolis, Maryland, as authorized by the Acts of Congress approved June seventh, nineteen hundred, and March third, nineteen hundred and three, three hundred and eighty thousand dollars.

BUILDINGS FOR LEPERS, ISLAND OF GUAM: Naval station, island of Guam: Maintenance and care of lepers and other special patients, sixteen thousand dollars; in all, sixteen thousand dollars.

Total public works under Secretary's office, three hundred and ninety-six thousand dollars.

PUBLIC WORKS UNDER BUREAU OF NAVIGATION.

NAVAL TRAINING STATION, CALIFORNIA, BUILDINGS: For extra service pipe to Oakland shore, fifteen thousand dollars; to repair roads, one thousand dollars. To paint barracks buildings and officers' quar-

ters, three thousand dollars; dispensary building, to cost not exceeding twenty thousand dollars; in all, thirty-nine thousand dollars.

NAVAL TRAINING STATION, RHODE ISLAND, BUILDINGS: Improving and grading grounds and roads, two thousand five hundred dollars; rebuilding old timber wharf and improving water front, nine thousand three hundred dollars; refrigerating plant, increase, seven thousand nine hundred and fifty dollars; artesian and fresh-water system (to extend), three thousand five hundred dollars; grading and walks at barracks "C," two thousand dollars; dredging channel and basin, five thousand dollars; steam-distributing lines, six thousand three hundred dollars; increase of heating and lighting plant, five thousand three hundred dollars; sanitary, heating, and ventilating system in barracks "B," nine thousand eight hundred and forty dollars; completion and repairs, three double sets of officers' quarters, four thousand two hundred and thirty-two dollars; furnishing assembly, lecture, and reading room, and improving basement story, two thousand nine hundred and ninety dollars; in all, naval training station, Rhode Island, fifty-eight thousand nine hundred and twelve dollars.

NAVAL TRAINING STATION, GREAT LAKES, BUILDINGS: Toward the continuance of construction of buildings in accordance with the provisions of the Act of Congress approved June twenty-ninth, nineteen hundred and six, five hundred thousand dollars.

Electrical mains and conduits, heating mains and concrete conduits, heating station equipment, power plant equipment, water supply and sewage disposal, two hundred thousand dollars; in all, seven hundred thousand dollars.

In all, public works, Bureau of Navigation, seven hundred and ninety-seven thousand nine hundred and twelve dollars.

PUBLIC WORKS, BUREAU OF ORDNANCE.

NAVAL MAGAZINE, DOVER, NEW JERSEY: Two brick magazine buildings, each seventy-five feet by forty feet, to be known as magazines numbered six and seven, with the necessary railroad tracks to connect with the present system, twenty-two thousand dollars; in all, naval magazine, Dover, Lake Denmark, New Jersey, twenty-two thousand dollars.

NAVAL MAGAZINE, SAINT JULIENS CREEK, NORFOLK, VIRGINIA: One brick magazine building, fifty feet by one hundred feet, fourteen thousand dollars; in all, fourteen thousand dollars.

NAVAL PROVING GROUND, INDIAN HEAD, MARYLAND: Shell and mount storehouse, including twenty-ton traveling crane and five-ton auxiliary hoist, to cost not exceeding twenty thousand five hundred dollars; laboratory annex, five thousand dollars; nitrate of soda storehouse, to replace building destroyed by fire, four thousand five hundred dollars; ether vault and tank, one thousand three hundred and eighty dollars; pyro storehouse, eight hundred and fifty dollars; completion of bomb proof for velocity battery, nine hundred dollars; clearing underbrush, care of grounds, and preservation of permanent way of railroad tracks, one thousand dollars; in all, naval proving ground, Indian Head, thirty-four thousand one hundred and thirty dollars.

Naval magazine, Fort Mifflin, Pennsylvania: Repairs to wharf and railroad track, five thousand dollars; installation of drainage system

for five dwellings to discharge into river at low-water mark, two thousand five hundred dollars; one building of corrugated steel construction, eighteen by thirty-two feet, for use of workmen, one thousand two hundred dollars; in all, eight thousand two hundred dollars.

Naval magazine, New England coast: Toward the erection of the necessary buildings on ground, the purchase of which is now under negotiation, as authorized by the Act approved April twenty-seventh, nineteen hundred and four, for a new naval magazine on the New England coast; also toward inclosing said grounds, grading and filling in, building roads and walks, improvement of the water front, necessary wharves and cranes, railroad tracks, and rolling stock for local service, fire and water service, and equipment of the establishment, one hundred and thirty thousand dollars.

Naval magazine, Mare Island, California: Toward additional magazine and storage facilities, quarters for gunners, fencing, extension of wharf, fire mains, lighting, telephone and railroad systems, and equipment pertaining thereto, fifty thousand dollars.

Torpedo station, Newport, Rhode Island: Rebuilding the oldest section of sea wall, five thousand dollars; ferry slip at torpedo station and Government landing, seven thousand five hundred dollars; in all, twelve thousand five hundred dollars.

Naval magazine, New York Harbor: For naval magazine, New York Harbor (Iona Island): Extension to locomotive house to hold number two compressed-air locomotive, eight hundred dollars; installing fire protection, standpipes, and nozzles in storehouse numbered one, one thousand and fifty dollars; one additional magazine building, standard construction, with grading of sites, fifteen thousand dollars; two filling houses, with steam heating, two thousand dollars; extension of railroad tracks, and new sidings, three thousand dollars; one heat-test house, one thousand dollars; extending sewers, five hundred dollars; primer house, six hundred dollars; in all, twenty-three thousand nine hundred and fifty dollars.

Naval magazine, Puget Sound, Washington: For necessary buildings, water and fire system; fencing, clearing, and grading; railroad tracks, and equipment of the naval magazine, Puget Sound, on ground recently acquired for the purpose, total cost of the improvements to said grounds not to exceed one hundred and fifty-three thousand dollars, seventy-five thousand dollars.

Total public works under Bureau of Ordnance, three hundred and sixty-nine thousand seven hundred and eighty dollars.

PUBLIC WORKS UNDER BUREAU OF EQUIPMENT.

NAVAL OBSERVATORY: Grounds and roads: Continuing grading, extending roads and paths, clearing and improving grounds, ten thousand dollars.

PUBLIC WORKS UNDER BUREAU OF MEDICINE AND SURGERY.

Naval hospital, Pensacola, Florida: For the renewal of the present hospital buildings, fifteen thousand dollars, and for the erection of quarters for the medical staff outside the naval hospital, ten thousand dollars; in all, twenty-five thousand dollars.

Naval hospital, Puget Sound, Washington: For the construction of naval hospital buildings; seventy-five thousand dollars, (total cost not to exceed one hundred and fifty thousand dollars).

Naval Hospital, Washington, District of Columbia: For the erection of an addition, symmetrical with the northeast pavilion, solarium, and connecting corridor, to the naval hospital, Washington, District of Columbia, sixty thousand dollars.

Naval medical supply depot, Canacao, Philippine Islands: For the erection of a building for the United States naval medical supply depot on the grounds of the naval hospital, Canacao, twenty-five thousand dollars.

Total public works under Bureau of Medicine and Surgery, one hundred and eighty-five thousand dollars.

PUBLIC WORKS, MARINE CORPS.

Barracks and quarters, Marine Corps: For construction of officers' quarters, navy-yard, League Island, Pennsylvania, to cost not to exceed thirty thousand dollars, thirty thousand dollars;

For the purchase of ground adjoining the quartermasters' depot, Philadelphia, Pennsylvania, and erection thereon of an addition to said depot, at a cost of ground and building not to exceed two hundred thousand dollars, two hundred thousand dollars;

To complete marine barracks and officers' quarters, walls and improvement to grounds, Washington, District of Columbia, eighty thousand dollars;

For roads, walks, grading, and so forth, Marine Corps reservation, navy-yard, Norfolk, Virginia, five thousand dollars;

For construction of two officers' quarters, navy-yard, Pensacola, Florida, ten thousand dollars;

For construction of marine barracks, naval station, Guantanamo, Cuba, ten thousand dollars;

For construction of an addition to the marine barracks, navy-yard, Bremerton, Washington, twelve thousand dollars;

In all, public works, Marine Corps, three hundred and forty-seven thousand dollars.

BUREAU OF MEDICINE AND SURGERY.

MEDICAL DEPARTMENT: For surgeons' necessities for vessels in commission, navy-yards, naval stations, Marine Corps, and for the civil establishment at the several naval hospitals, navy-yards, naval laboratory, museum of hygiene, and department of instruction, and Naval Academy, two hundred and fifty-five thousand dollars.

NAVAL HOSPITAL FUND: For maintenance of the naval hospitals at the various navy-yards and stations, and for care and maintenance of patients in other hospitals at home and abroad, forty thousand dollars.

CONTINGENT, BUREAU OF MEDICINE AND SURGERY: For expressage on medical stores, tolls, ferriages, care, transportation, and burial of the dead; advertising, telegraphing, rent of telephones, purchase of books and stationery, binding of medical records, unbound books; and pamphlets; postage and purchase of stamps for foreign service; hygienic and sanitary investigation and illustration; sanitary and hygienic instruction; purchase and repairs of wagons and harness; purchase of and feed for horses and cows; trees, plants, garden tools

and seeds; furniture and incidental articles for the museum of hygiene and department of instruction, naval dispensary, Washington, naval laboratory, sick quarters at Naval Academy and marine barracks, surgeons' offices and dispensaries at navy-yards and naval stations, surgeons' quarters at naval hospitals; washing for medical department at museum of hygiene and department of instruction, naval dispensary, Washington; naval laboratory, sick quarters at Naval Academy and marine barracks, dispensaries at navy-yards and naval stations, and ships; and for minor repairs on buildings and grounds of the United States Naval Museum of Hygiene and Department of Instruction; for the care, maintenance, and treatment of the insane of the Navy and Marine Corps on the Pacific coast, and all other necessary contingent expenses; in all, fifty-five thousand dollars.

TRANSPORTATION OF REMAINS: To enable the Secretary of the Navy, in his discretion, to cause to be transferred to their homes the remains of officers and enlisted men of the Navy and Marine Corps who die or are killed in action ashore or afloat, and also to enable the Secretary of the Navy, in his discretion, to cause to be transported to their homes the remains of civilian employees who die outside of the continental limits of the United States, ten thousand dollars: *Provided*, That the sum herein appropriated shall be available for payment for transportation of the remains of officers and men who have died while on duty at any time since April twenty-first, eighteen hundred and ninety-eight.

REPAIRS, BUREAU OF MEDICINE AND SURGERY: For necessary repairs of naval laboratory, naval hospitals, and appendages, including roads, wharves, outhouses, sidewalks, fences, gardens, farms, and cemeteries, forty-five thousand dollars.

For the equipment of a hospital for laborers at the naval station, Guantanamo, including ward, kitchen, dispensary, and operating-room supplies, to be immediately available, nine hundred dollars.

BUREAU OF SUPPLIES AND ACCOUNTS.

PROVISIONS, NAVY: For provisions and commuted rations for the seamen and marines, which commuted rations may be paid to caterers of messes, in case of death or desertion, upon orders of the commanding officers, commuted rations for officers on sea duty (other than commissioned officers of the line, Medical and Pay Corps, and chief boatswains, chief gunners, chief sailmakers, chief carpenters), and midshipmen, and commuted rations stopped on account of sick in hospital and credited to the naval hospital fund; subsistence of officers and men unavoidably detained or absent from vessels to which attached under orders (during which subsistence rations to be stopped on board ship and no credit for commutation therefor to be given); labor in general storehouses and paymasters' offices in navy-yards, including naval stations maintained in island possessions under the control of the United States, and expenses in handling stores purchased under the naval-supply fund; one chemist, at two thousand five hundred dollars per annum, and two chemists, at two thousand dollars each per annum, one hundred thousand United States Army emergency rations, five million five hundred and forty-two thousand dollars: *Provided*, That pay department stores may be sold to civilian employees at naval stations beyond the continental limits of the United States and in

Alaska, under such regulations as the Secretary of the Navy may prescribe: *Provided further*, That section fifteen hundred and eighty-one of the Revised Statutes, as amended by Act of June twenty-ninth, nineteen hundred and six, be, and it is hereby, further amended by adding thereto a paragraph as follows:

"Any article comprised in the Navy ration may be issued in excess of the authorized quantity, provided there be an under issue of the same value in some other article or articles: *And provided, further*, That the unexpended balances under appropriations 'Provisions, Navy,' for the fiscal years ending June thirtieth, nineteen hundred and five and nineteen hundred and six, are hereby reappropriated for 'Provisions, Navy,' for the fiscal year ending June thirtieth, nineteen hundred and eight."

CONTINGENT, BUREAU OF SUPPLIES AND ACCOUNTS: For expressage, fuel, books and blanks, stationery, advertising, furniture and interior fittings for general storehouses and pay offices in navy-yards; coffee mills and repairs thereto; expenses of naval clothing factory and machinery for same, postage, telegrams, telephones, tolls, ferriages, yeoman's stores, safes, newspapers, ice, and other incidental expenses, one hundred and sixty-five thousand dollars: *Provided*, That the sum of ten thousand dollars from the unexpended balance under appropriation "Contingent, Bureau of Supplies and Accounts," for the fiscal year ending June thirtieth, nineteen hundred and six, is hereby reappropriated for "Contingent, Bureau of Supplies and Accounts," for the fiscal year ending June thirtieth, nineteen hundred and eight: *Provided further*, That hereafter the purchase of supplies and the procurement of services for all branches of the naval service may be made in open market in the manner common among business men, without formal contract or bond, when the aggregate of the amount required does not exceed five hundred dollars, and when, in the opinion of the proper administrative officers, such limitation of amount is not designed to evade purchase under formal contract or bond, and equally or more advantageous terms can thereby be secured.

Freight, Bureau of Supplies and Accounts: All freight charges pertaining to the Navy Department and its bureaus, except the transportation of coal for the Bureau of Equipment, five hundred thousand dollars.

CIVIL ESTABLISHMENT, BUREAU OF SUPPLIES AND ACCOUNTS: Navy-yard, Portsmouth, New Hampshire: In general storehouses: Two bookkeepers, at one thousand two hundred dollars each; one assistant bookkeeper, at seven hundred and twenty dollars; one bill clerk, at one thousand dollars; one assistant clerk, at seven hundred and twenty dollars; one shipping and receiving clerk, at one thousand dollars; in all, five thousand eight hundred and forty dollars;

Navy-yard, Boston, Massachusetts: In general storehouses: One bookkeeper, at one thousand and seventeen dollars and twenty-five cents; one shipping clerk, at one thousand dollars; one receiving clerk, at one thousand dollars; one bookkeeper, at one thousand two hundred dollars. In yard pay office: One writer, at one thousand and seventeen dollars and twenty-five cents; in all, five thousand two hundred and thirty-four dollars and fifty cents;

Navy-yard, New York, New York: In office of board of inspection: One writer, nine hundred dollars. In general storehouses: Three bookkeepers, at one thousand two hundred dollars each; one assistant bookkeeper, at one thousand dollars; one assistant bookkeeper, at

seven hundred and twenty dollars; two receiving clerks, at four dollars each per diem; one assistant receiving clerk, at one thousand and ninety-nine dollars; three shipping clerks, at one thousand dollars each; one bill clerk, at one thousand dollars; one assistant bill clerk, at seven hundred and twenty dollars; two leading men, at two dollars and fifty cents each per diem; five pressmen, at two dollars and seventy-six cents each per diem; one box maker, at three dollars per diem; one engine tender, at three dollars and twenty-six cents per diem; one coffee roaster, at two dollars and fifty cents per diem; one fireman, at two dollars per diem; one messenger, at two dollars and twenty-five cents per diem; one writer, one thousand dollars; one store man, nine hundred dollars; one principal clerk, provisions and clothing section, one thousand four hundred dollars; one principal clerk, supply-fund section, one thousand four hundred dollars; one cloth inspector, at four dollars per diem, one thousand two hundred and fifty-six dollars. In yard pay office: One writer, at one thousand and seventeen dollars and twenty-five cents; one messenger, at two dollars and twenty-five cents per diem; in all, thirty-two thousand two hundred and nineteen dollars and nine cents.

Navy-yard, League Island, Pennsylvania: In general storehouse: Two bookkeepers, at one thousand two hundred dollars each; one assistant bookkeeper, at seven hundred and twenty dollars; one bill clerk, at one thousand dollars; one receiving clerk, at one thousand dollars; one shipping clerk, at one thousand dollars. In yard pay office: One writer, at one thousand and seventeen dollars and twenty-five cents; in all, seven thousand one hundred and thirty-seven dollars and twenty-five cents.

Navy-yard, Washington, District of Columbia: In general storehouse: One bookkeeper, at one thousand two hundred dollars; one clerk, at one thousand two hundred dollars; one receiving clerk, at one thousand dollars; one bill clerk, at one thousand dollars; one shipping clerk, at one thousand dollars. In yard pay office: One writer, at one thousand and seventeen dollars and twenty-five cents; in all, six thousand four hundred and seventeen dollars and twenty-five cents.

Naval Academy, Annapolis, Maryland: In general storehouse: One bookkeeper, at one thousand and seventeen dollars and twenty-five cents; one receiving and shipping clerk, at one thousand dollars; in all, two thousand and seventeen dollars and twenty-five cents.

Naval station, Newport, Rhode Island: In general storehouse (training station): One clerk, at one thousand two hundred dollars. In general storehouse (torpedo station): One clerk, at one thousand two hundred dollars; in all, two thousand four hundred dollars.

Navy-yard, Mare Island, California: In general storehouse: Two bookkeepers, at one thousand two hundred dollars each; two assistant bookkeepers, at seven hundred and twenty dollars each; one receiving clerk, at one thousand dollars; one shipping clerk, at one thousand dollars; one bill clerk, at one thousand dollars; one clerk, at one thousand dollars; one assistant clerk, at one thousand dollars. In yard pay office: One writer, at one thousand and seventeen dollars and twenty-five cents; in all, nine thousand eight hundred and fifty-seven dollars and twenty-five cents.

Navy-yard, Norfolk, Virginia: In general storehouses: Two bookkeepers, at one thousand two hundred dollars each; two assistant bookkeepers, at one thousand and seventeen dollars and twenty-five cents each; one bill clerk, at one thousand dollars; one assistant bill

clerk, at seven hundred and twenty dollars; two receiving clerks, at nine hundred and forty-two dollars each. In yard pay office: One writer, at one thousand and seventeen dollars and twenty-five cents; in all, nine thousand and fifty-five dollars and seventy-five cents.

Naval station, Cavite, Philippine Islands: In general storehouses: One clerk, at one thousand six hundred dollars; one bookkeeper, at one thousand four hundred dollars; three assistant bookkeepers, at one thousand two hundred dollars each, three thousand six hundred dollars; one shipping and bill clerk, at one thousand two hundred dollars; three storekeepers, at one thousand dollars each, three thousand dollars; one receiving clerk, at one thousand two hundred dollars; one shipping clerk, at one thousand dollars; one assistant clerk, at one thousand dollars; two store men, at nine hundred dollars each; in all, fifteen thousand eight hundred dollars.

Navy-yard, Puget Sound, Washington: In general storehouses: One principal clerk, one thousand four hundred dollars; two bookkeepers, at one thousand two hundred dollars each, two thousand four hundred dollars; one bill clerk, one thousand dollars; one receiving clerk, one thousand dollars; one shipping clerk, one thousand dollars; in all, six thousand eight hundred dollars;

Naval station, Key West, Florida: One clerk, one thousand two hundred dollars; in all, one thousand two hundred dollars;

In all, civil establishment, Bureau of Supplies and Accounts, one hundred and three thousand nine hundred and seventy-eight dollars and thirty-four cents; and no other fund appropriated by this Act shall be used in payment for such service.

BUREAU OF CONSTRUCTION AND REPAIR.

CONSTRUCTION AND REPAIR OF VESSELS: For preservation and completion of vessels on the stocks and in ordinary; purchase of materials and stores of all kinds; steam steerers, pneumatic steerers, steam capstans, steam windlasses and all other auxiliaries; labor in navy-yards and on foreign stations; purchase of machinery and tools for use in shops; carrying on work of experimental model tank; designing naval vessels; construction and repair of yard craft, lighters, and barges; wear, tear, and repair of vessels afloat; general care, increase, and protection of the Navy in the line of construction and repair; incidental expenses for vessels and navy-yards, inspectors' offices, such as advertising, foreign postage, telegrams, telephone service, photographing, books, professional magazines, plans, stationery, and instruments for drafting room, seven million nine hundred thousand dollars: *Provided*, That no part of this sum shall be applied to the repair of any wooden ship, when the estimated cost of such repairs, to be appraised by a competent board of naval officers shall exceed ten per centum of the estimated cost, appraised in like manner, of a new ship of the same size and like material: *Provided further*, That no part of this sum shall be applied to the repair of any other ship when the estimated cost of such repairs, to be appraised by a competent board of naval officers, shall exceed twenty per centum of the estimated cost, appraised in like manner, of a new ship of the same size and like material: *Provided*, That nothing herein contained shall deprive the Secretary of the Navy of the authority to order repairs of ships damaged in foreign waters or on the high seas, so far as may be necessary to bring them home: *And provided*

further, That the Secretary of the Navy shall hereafter report to Congress, at the commencement of each regular session, the number of vessels and their names upon which any repairs or changes are proposed which in any case shall amount to more than two hundred thousand dollars, the extent of such proposed repairs or changes, and the amounts estimated to be needed for the same in each vessel; and expenditures for such repairs or changes so limited shall be made only after appropriations in detail are provided for by Congress.

IMPROVEMENT OF CONSTRUCTION PLANT: Construction plant, navy-yard, Portsmouth, New Hampshire: Repairs to, and improvements of, plant at navy-yard, Portsmouth, New Hampshire, fifteen thousand dollars.

Construction plant, navy-yard, Boston, Massachusetts: Repairs to, and improvement of, plant at navy-yard, Boston, Massachusetts, twenty thousand dollars.

Construction plant, navy-yard, New York, New York: Repairs to, and improvement of, plant at navy-yard, New York, New York, twenty thousand dollars.

Construction plant, navy-yard, League Island, Pennsylvania: Repairs to, and improvement of, plant at navy-yard, League Island, Pennsylvania, fifteen thousand dollars.

Construction plant, navy-yard, Norfolk, Virginia: Repairs to, and improvement of, plant at navy-yard, Norfolk, Virginia, twelve thousand dollars.

Construction plant, navy-yard, Pensacola, Florida: Repairs to, and improvement of, plant at navy-yard, Pensacola, Florida, fifteen thousand dollars.

Construction plant, naval station, New Orleans, Louisiana: Repairs to, and improvement of, plant at naval station, New Orleans, Louisiana, ten thousand dollars.

Construction plant, navy-yard, Mare Island, California: Repairs to, and improvement of, plant at navy-yard, Mare Island, California, fifteen thousand dollars.

Construction plant, navy-yard, Puget Sound, Washington: Repairs to, and improvement of, plant at navy-yard, Puget Sound, Washington, twenty thousand dollars.

Construction plant, navy-yard, Charleston, South Carolina: Repairs to, and improvement of, plant at naval station, Charleston, South Carolina, twenty thousand dollars.

CIVIL ESTABLISHMENT, BUREAU OF CONSTRUCTION AND REPAIR: Navy-yard, Portsmouth, New Hampshire: One clerk to naval constructor, at one thousand four hundred dollars; two writers, at one thousand and seventeen dollars and twenty-five cents each; in all, three thousand four hundred and thirty-four dollars and fifty cents;

Navy-yard, Boston, Massachusetts: One clerk to naval constructor, at one thousand four hundred dollars; two writers, at one thousand and seventeen dollars and twenty-five cents each; in all, three thousand four hundred and thirty-four dollars and fifty cents;

Navy-yard, New York, New York: One clerk to naval constructor, at one thousand four hundred dollars; three clerks, at one thousand two hundred dollars each; three clerks, at one thousand one hundred dollars each; three writers, at one thousand and seventeen dollars and twenty-five cents each; in all, eleven thousand three hundred and fifty-one dollars and seventy-five cents;

Navy-yard, League Island, Pennsylvania: One clerk to naval constructor, at one thousand four hundred dollars; one writer, at one thousand and seventeen dollars and twenty-five cents; in all, two thousand four hundred and seventeen dollars and twenty-five cents;

Navy-yard, Washington, District of Columbia: One clerk to naval constructor, at one thousand four hundred dollars;

Navy-yard, Norfolk, Virginia: One clerk to naval constructor, at one thousand four hundred dollars; two writers, at one thousand and seventeen dollars and twenty-five cents each; in all, three thousand four hundred and thirty-four dollars and fifty cents;

Navy-yard, Charleston, South Carolina: One clerk to naval constructor, one thousand four hundred dollars;

Navy-Yard, Pensacola, Florida: One clerk to naval constructor, at one thousand two hundred dollars; one writer, at one thousand and seventeen dollars and twenty-five cents; in all, two thousand two hundred and seventeen dollars and twenty-five cents;

Navy-yard, Mare Island, California: One clerk to naval constructor, at one thousand four hundred dollars; two writers, at one thousand and seventeen dollars and twenty-five cents each; in all, three thousand four hundred and thirty-four dollars and fifty cents;

Navy-yard, Puget Sound, Washington: One clerk to naval constructor, one thousand four hundred dollars; one clerk, at one thousand dollars; one clerk, at nine hundred dollars; in all, three thousand three hundred dollars;

Naval station, New Orleans, Louisiana: One clerk to naval constructor, one thousand two hundred dollars;

Naval station, Cavite, Philippine Islands: One clerk to naval constructor, one thousand four hundred dollars; two clerks, at one thousand two hundred dollars each, two thousand four hundred dollars; in all, three thousand eight hundred dollars;

In all, civil establishment, Bureau of Construction and Repair, forty thousand eight hundred and twenty-four dollars and twenty-five cents; and no other fund appropriated by this Act shall be used in payment for such service.

BUREAU OF STEAM ENGINEERING.

STEAM MACHINERY: For completion, repairing, and preservation of machinery and boilers of naval vessels, including cost of new boilers; distilling, refrigerating, and auxiliary machinery; preservation of and small repairs to machinery and boilers in vessels in ordinary, receiving, and training vessels; repair and care of machinery of yard tugs and launches; three million five hundred thousand dollars;

For purchase, handling, and preservation of all material and stores; purchase, fitting, repair, and preservation of machinery and tools in navy-yards and stations, and running yard engines, two million dollars;

For incidental expenses for navy vessels, yards, such as foreign postage, telegrams, advertising, expressage, photographing, books, stationery, office furnishings, and instruments, six thousand dollars;

In all, steam machinery, five million five hundred and six thousand dollars.

Machinery plant, navy-yard, Pensacola, Florida: For purchase of modern tools for use in repair of naval vessels, to replace others worn out, ten thousand dollars.

Machinery plant, navy-yard, Portsmouth, New Hampshire: To outfit new shops, authorized and completed or nearly completed, with new power tools, and to replace obsolete and worn-out machine tools, thirty thousand dollars; in all, thirty thousand dollars.

Machinery plant, navy-yard, Norfolk, Virginia: For machine tools to equip machine and boiler shop extension, twenty-five thousand dollars.

Machinery plant, navy-yard, New York, New York: For additional machine tools for copper, boiler, machine and pattern shops, and foundry, forty thousand dollars.

Machinery plant, League Island, Pennsylvania: For additional machine tools for machine and boiler shops, twenty-five thousand dollars.

Machinery plant, naval station, Cavite, Philippine Islands: For additional machine tools, twenty-five thousand dollars.

Machinery plant, naval station, Olongapo, Philippine Islands: For machine tools required for equipment of shops for repair work, twenty thousand dollars.

Engineering experimental station, United States Naval Academy, Annapolis, Maryland—Salaries: One draftsman to engineering staff at the laboratory, one thousand eight hundred dollars; one clerk to engineering staff at the laboratory, one thousand two hundred dollars; one skilled mechanic, one thousand two hundred dollars; one skilled mechanic, seven hundred and twenty dollars; one messenger, who shall also be janitor, six hundred dollars; in all, five thousand five hundred and twenty dollars.

Experimental and research work: For original investigation and extended experimentation of naval appliances; and for the purchase of such machines and auxiliaries considered applicable for test and use in the naval service, twenty-five thousand dollars.

CIVIL ESTABLISHMENT, BUREAU OF STEAM ENGINEERING: Navy-yard, Portsmouth, New Hampshire: One clerk to department, at one thousand two hundred dollars; one messenger, at six hundred dollars; in all, one thousand eight hundred dollars;

Navy-yard, Boston, Massachusetts: One clerk to department, one thousand four hundred dollars;

Navy-yard, New York, New York: One clerk to department, at one thousand four hundred dollars; one writer, at one thousand dollars; one messenger, at six hundred dollars; in all, three thousand dollars;

Navy-yard, League Island, Pennsylvania: One clerk to department, at one thousand two hundred dollars;

Navy-yard, Norfolk, Virginia: One clerk to department, at one thousand three hundred dollars; one messenger, at six hundred dollars; in all, one thousand nine hundred dollars;

Navy-yard, Pensacola, Florida: One writer, one thousand dollars;

Navy-yard, Mare Island, California: One clerk to department, at one thousand four hundred dollars; one writer, at one thousand dollars; one messenger, at six hundred dollars; in all, three thousand dollars;

Navy-yard, Charleston, South Carolina: One clerk to department, one thousand two hundred dollars;

Navy-yard, Puget Sound, Washington: One clerk to department, one thousand two hundred dollars; one writer, one thousand dollars; in all, two thousand two hundred dollars;

Navy-yard, Washington, District of Columbia: One clerk to department, one thousand two hundred dollars;

In all, civil establishment, Bureau of Steam Engineering, seventeen thousand nine hundred dollars; and no other fund appropriated by this Act shall be used in payment for such service.

NAVAL ACADEMY.

PAY OF PROFESSORS AND OTHERS, NAVAL ACADEMY: One professor as head of the department of physics, three thousand dollars;

One professor of mathematics, one of mechanical drawing, one of English, one of French, and one of Spanish, at two thousand five hundred dollars each;

Three professors, namely, one of English, one of French, and one of Spanish, at two thousand two hundred dollars each;

Five instructors, at two thousand dollars each;

Four instructors, at one thousand eight hundred dollars each;

Ten instructors, at one thousand five hundred dollars each;

One sword master, at one thousand five hundred dollars; one assistant, at one thousand two hundred dollars, and two assistants, at one thousand dollars each; one instructor in gymnastics, at one thousand two hundred dollars; one assistant librarian, at one thousand eight hundred dollars; one cataloguer, at one thousand one hundred dollars; two shelf assistants, at nine hundred dollars each; one secretary of the Naval Academy, at one thousand eight hundred dollars; two clerks to the superintendent, at one thousand two hundred dollars each; one clerk to the superintendent, at one thousand dollars; one clerk to the commandant of midshipmen, at one thousand two hundred dollars; one writer to the commandant of midshipmen, at seven hundred and twenty dollars; one clerk to the paymaster, at one thousand two hundred dollars; one clerk to the paymaster, at one thousand dollars; one dentist, at one thousand six hundred dollars; one baker, at six hundred dollars; one mechanic in department of physics, at seven hundred and thirty dollars; one mechanic in the department of ordnance, at nine hundred and fifty-one dollars and fifty-two cents; one mechanic in the department of ordnance, at seven hundred and fifty-one dollars and twenty cents; one cook, at three hundred and twenty-five dollars and fifty cents; one messenger to the superintendent, at six hundred dollars; one armorer, at six hundred and forty-nine dollars and fifty cents; one chief gunner's mate, at five hundred and twenty-nine dollars and fifty cents; three quarter gunners, at four hundred and sixty-nine dollars and sixty-eight cents; one coxswain, at four hundred and sixty-nine dollars and fifty cents; three seamen in the department of seamanship, at three hundred and ninety-seven dollars and fifty-cents; twenty attendants at recitation rooms, library, store, chapel, armory, gymnasium, and offices, at three hundred dollars each; one bandmaster, at one thousand two hundred dollars; twenty-one first-class musicians, at four hundred and twenty dollars each; seven second-class musicians, at three hundred and sixty dollars each; services of organist at chapel, three hundred dollars; one assistant instructor in gymnastics, one thousand dollars; one clerk to the superintendent, nine hundred dollars; one assistant baker, five hundred and forty dollars; one mechanic in department of physics, seven hundred and twenty dollars; one cook, six hundred dollars; two instructors in physical training, at one thousand five hundred dollars each; one clerk to the commandant of midshipmen, one thousand dollars; one electrical machinist in department of physics, one thousand dollars; one chief cook, one

thousand two hundred dollars; two cooks, at six hundred dollars each, one thousand two hundred dollars; one steward, one thousand two hundred dollars; one assistant steward, six hundred dollars; one head waiter, seven hundred and twenty dollars; two assistant head waiters, at four hundred and eighty dollars each, nine hundred and sixty dollars; two pantry men, at four hundred and twenty dollars each, eight hundred and forty dollars; one assistant baker, four hundred and twenty dollars; necessary waiters, at sixteen dollars per month each, thirteen thousand four hundred and forty dollars; one printer at seven hundred and twenty dollars; one printer at four hundred and eighty dollars; in all, one hundred and thirty-three thousand four hundred and eight dollars and twenty-six cents.

PAY OF WATCHMEN, MECHANICS, AND OTHERS, NAVAL ACADEMY: Captain of the watch, and weigher, at two dollars and fifty cents per diem; second captain of the watch, at two dollars and twenty-four cents per diem; twenty-two watchmen, at two dollars per diem each; foreman of steam heating works of the academy, at five dollars per diem; labor at power house for masons, carpenters, and other mechanics, laborers, and attendants; and for care of buildings and grounds, wharves, and boats; in all, one hundred thousand dollars.

PAY OF STEAM EMPLOYEES, NAVAL ACADEMY: Pay of mechanics, attendants, and others in department of steam engineering, twenty thousand three hundred and forty-three dollars and six cents.

Special course of study and training of midshipmen, as authorized by Act of Congress approved August fifth, eighteen hundred and eighty-two, three thousand dollars.

REPAIRS, NAVAL ACADEMY: Necessary repairs of public buildings, wharves, and walls inclosing the grounds of the Naval Academy, improvements, repairs, furniture, and fixtures, thirty thousand dollars.

HEATING AND LIGHTING, NAVAL ACADEMY: Fuel, oil, waste, and other materials for the operation, repair, and maintenance of the plant; heating and lighting apparatus and tools; and for heating and lighting the academy and bandsmen's quarters, fifty thousand dollars.

CONTINGENT, NAVAL ACADEMY: Purchase, binding, and repair of books for the library and text-books for the use of instructors (to be purchased in open market on the written order of the superintendent), two thousand five hundred dollars; purchase of azimuth tables, seven hundred dollars; stationery, blank books, models, and maps, two thousand five hundred dollars; expenses of the Board of Visitors of the Naval Academy, being mileage and five dollars per diem for each member for expenses during actual attendance at the academy, and for supplying necessary outfit for the Board house, and for clerk hire, carriages, and other incidental and necessary expenses of the Board, two thousand dollars; purchase of chemicals, apparatus, and instruments in the department of physics and for repairs of the same, three thousand dollars; purchase of gas and steam machinery, steam pipes and fittings, rent of buildings for the use of the academy, commutation of rent for bandsmen, at eight dollars per month each, freight, cartage, water, music, musical and astronomical instruments, uniforms for the bandsmen, telegraphing, feed and maintenance of teams, current expenses, and repairs of all kinds, and for incidental labor and expenses not applicable to any other appropriation, sixty thousand dollars; stores, stationery, periodicals, materials, apparatus, machinery, tools, and fittings; for use in the department of marine engineering and naval construction, for purposes of instruction, repairs of apparatus,

tools, and machinery, care and cleaning of building and its equipment, and for all other necessary purposes, fifteen thousand dollars; for contingencies for the superintendent of the academy, to be expended in his discretion, two thousand dollars; apparatus for the instruction of midshipmen in the various academic departments, fifteen thousand dollars; for care of rifle range, one thousand two hundred and seventy-seven dollars and four cents; in all, one hundred and three thousand nine hundred and seventy-seven dollars and four cents.

In all, Naval Academy, four hundred and forty thousand seven hundred and twenty-eight dollars and thirty-six cents.

MARINE CORPS.

PAY, MARINE CORPS: For pay and allowances prescribed by law of officers on the active list, five hundred and ninety-eight thousand one hundred and forty dollars.

For pay of officers prescribed by law, on the retired list: For one major-general, seven brigadier-generals, two colonels, seven lieutenant-colonels, five majors, six captains, seven first lieutenants, and four second lieutenants, and for officers who may be placed thereon during the year, including such increased pay as is now or may hereafter be provided for retired officers regularly assigned to active duty, one hundred and fifteen thousand dollars.

Pay of noncommissioned officers, musicians, and privates, as prescribed by law; and the number of enlisted men shall be exclusive of those undergoing imprisonment with sentence of dishonorable discharge from the service at expiration of such confinement, and for the expenses of clerks of the United States Marine Corps traveling under orders, and including additional compensation for enlisted men of the Marine Corps regularly detailed as gun pointers, messmen, signalmen, or holding good-conduct medals, pins, or bars, and for prizes for excellence in gunnery exercise and target practice, both afloat and ashore, one million eight hundred and eighty-three thousand five hundred and fifty-five dollars and twenty cents: *Provided*, That hereafter privates regularly detailed and serving as cooks, shall receive, in addition to the pay otherwise allowed by law, the following: First-class cooks, ten dollars per month; second-class cooks, eight dollars; third-class cooks, seven dollars; and fourth-class cooks, five dollars.

Pay and allowance of retired enlisted men: For two sergeant-majors, one drum-major, seven gunnery-sergeants, eleven quartermaster-sergeants, twelve first sergeants, thirty-seven sergeants, five corporals, thirteen first-class musicians, one drummer, one trumpeter, and thirty-five privates, and for those who may be retired during the fiscal year, sixty-seven thousand four hundred and twenty-two dollars.

Undrawn clothing: For payment to discharged soldiers for clothing undrawn, eighty-five thousand five hundred and sixty-nine dollars and ninety-eight cents.

Mileage: For mileage to officers traveling under orders without troops, forty thousand dollars;

For commutation of quarters of officers on duty without troops where there are no public quarters, twenty thousand dollars;

PAY OF CIVIL FORCE: In the office of the Brigadier-General Commandant: One chief clerk, at one thousand six hundred dollars; one clerk, at one thousand two hundred dollars; one messenger, at nine hundred and seventy-one dollars and twenty-eight cents;

In the office of the paymaster: One chief clerk, at one thousand six

hundred dollars; one clerk, at one thousand five hundred dollars; one clerk, at one thousand two hundred dollars;

In the office of each assistant paymaster: One clerk, at one thousand four hundred dollars;

In the office of the adjutant and inspector: One chief clerk, at one thousand six hundred dollars; one clerk, at one thousand five hundred dollars;

In the office of the assistant adjutant and inspector: One clerk, at one thousand two hundred dollars;

In the office of the quartermaster: One chief clerk, at one thousand six hundred dollars; one clerk, at one thousand five hundred dollars; two clerks, at one thousand two hundred dollars each; one draftsman, at one thousand six hundred dollars;

In the office of the assistant quartermaster, Washington, District of Columbia, or San Francisco, California: Two clerks, at one thousand four hundred dollars each; two clerks, for duty in the Philippine Islands, one in Pay and one in Quartermaster's Department, at one thousand four hundred dollars each;

In the office of the assistant quartermaster, Philadelphia, Pennsylvania: One clerk, at one thousand six hundred dollars; one messenger, at eight hundred and forty dollars;

In all, for pay of civil force, thirty thousand three hundred and eleven dollars and twenty-eight cents; and the money herein specifically appropriated for pay of the Marine Corps shall be disbursed and accounted for in accordance with existing law as pay of the Marine Corps, and for that purpose shall constitute one fund;

For interest on soldiers' deposits, four thousand dollars, and so much as may be necessary to refund such deposits.

In all, pay Marine Corps, two million eight hundred and forty-three thousand nine hundred and ninety-eight dollars and forty-six cents.

PROVISIONS, MARINE CORPS: For noncommissioned officers, musicians, and privates serving ashore, for subsistence of enlisted men when traveling on duty, or cash in lieu thereof, for commutation of rations to enlisted men regularly detailed as clerks and messengers, for payment of board and lodging of recruiting parties, transportation of provisions, and the employment of necessary labor connected therewith, and for ice for preservation of rations, five hundred and forty-eight thousand five hundred and three dollars; and no law shall be construed to entitle marines on shore duty to any rations, or commutation thereof, other than such as now are or may hereafter be allowed to enlisted men in the Army: *Provided, however,* That when it is impracticable or the expense is found greater to supply marines serving on shore duty in the island possessions and on foreign stations with the army ration, such marines may be allowed the navy ration or commutation therefor.

CLOTHING, MARINE CORPS: For noncommissioned officers, musicians, and privates authorized by law, six hundred thousand nine hundred and twenty dollars.

FUEL, MARINE CORPS: For heating barracks and quarters, for ranges and stoves for cooking, fuel for enlisted men, for sales to officers, maintaining electric lights, eighty thousand dollars.

MILITARY STORES, MARINE CORPS: Pay of chief armorer, at four dollars per day; one mechanic, at three dollars per day; two mechanics, at two dollars and fifty cents each per day; for purchase of military equipments, such as rifles, revolvers, cartridge boxes, bayonet

scabbards, haversacks, blanket bags, knapsacks, canteens, musket slings, swords, drums, trumpets, flags, waist belts, waist plates, cartridge belts, sashes for officer of the day, spare parts for repairing muskets, purchase and repair of tents and field ovens, purchase and repair of instruments for band, purchase of music and musical accessories, purchase and marking of prizes for excellence in gunnery and rifle practice, good-conduct badges; for incidental expenses of the School of Application; for the construction, equipment, and maintenance of school, library, and amusement rooms and gymnasiums for enlisted men, and the purchase and repair of all articles of field sports for enlisted men; purchase and repair of signal equipment and stores; for the establishment and maintenance of targets and ranges, and renting ranges, and for entrance fees in competitions; and for procuring, preserving, and handling ammunition, and other necessary military supplies, two hundred and twenty-five thousand seven hundred and eighty-two dollars.

TRANSPORTATION AND RECRUITING, MARINE CORPS: For transportation of troops, including ferriage and transfers en route, or cash in lieu thereof, and the expense of the recruiting service, one hundred and eighty-six thousand dollars.

FOR REPAIRS OF BARRACKS, MARINE CORPS: Repairs and improvements to barracks and quarters at Portsmouth, New Hampshire; Boston, Massachusetts; Narragansett Station, Rhode Island; New York, New York; League Island, Pennsylvania; Annapolis, Maryland; headquarters and navy-yard, District of Columbia; Norfolk, Virginia; Port Royal and Charleston, South Carolina; Pensacola, Florida; Dry Tortugas, Florida; New Orleans, Louisiana; Mare Island and San Francisco, California; Bremerton, Washington, and Sitka, Alaska; for the renting, leasing, improvement, and erection of buildings in Porto Rico, the Territory of Hawaii, the Philippine Islands, at Guam, the District of Columbia, and at such other places as the public exigencies require; and for per diem to enlisted men employed under the direction of the Quartermaster's Department on the repair of barracks, quarters, and the other public buildings, seventy-eight thousand eight hundred and thirty-six dollars.

FORAGE, MARINE CORPS: For forage in kind for horses of the Quartermaster's Department, and the authorized number of officers' horses, seventeen thousand seven hundred dollars.

HIRE OF QUARTERS, MARINE CORPS: For hire of quarters for officers serving with troops where there are no public quarters belonging to the Government, and where there are not sufficient quarters possessed by the United States to accommodate them; for commutation of quarters for enlisted men employed as clerks and messengers in the offices of the commandant, adjutant and inspector, paymaster and quartermaster, and the offices of the assistant adjutant and inspectors, the assistant paymasters, and the assistant quartermasters, at twenty-one dollars each per month, and for enlisted men employed as messengers in said offices, at ten dollars each per month, fifty-one thousand five hundred and forty-eight dollars.

CONTINGENT, MARINE CORPS: For freight, tolls, cartage, advertising, washing of bed sacks, mattress covers, pillowcases, towels, and sheets, funeral expenses of marines, including the transportation of bodies from the place of demise to the homes of the deceased in the United States, stationery and other paper, telegraphing, rent of telephones, purchase and repair of typewriters, apprehension of strag-

glers and deserters, per diem of enlisted men employed on constant labor for a period of not less than ten days, employment of civilian labor, repair of gas and water fixtures, office and barracks furniture, camp and garrison equipage and implements, mess utensils for enlisted men, such as bowls, plates, spoons, knives and forks, tin cups, pans, pots, and so forth; packing boxes, wrapping paper, oilcloth, crash, rope, twine, quarantine fees, camphor and carbolized paper, carpenters' tools, tools for police purposes, iron safes, purchase and repair of public wagons, purchase and repair of public harness, purchase of public horses, services of veterinary surgeons, and medicines for public horses; purchase and repair of hose, purchase and repair of fire extinguishers, purchase of fire hand grenades; purchase and repair of carts, wheelbarrows, and lawn mowers; purchase and repair of cooking stoves, ranges, stoves and furnaces where there are no grates; purchase of ice, towels, soap, combs, and brushes for offices; postage stamps for foreign postage; purchase of books, newspapers, and periodicals; improving parade grounds; repair of pumps and wharves; laying drain, water, and gas pipes; water, introducing gas, and for gas, gas oil, and introduction and maintenance of electric lights; straw for bedding, mattresses, mattress covers, pillows, sheets; wire bunk bottoms for enlisted men at various posts; furniture for Government quarters and repair of same, and for all emergencies and extraordinary expenses arising at home and abroad, but impossible to anticipate or classify, two hundred and eighty thousand eight hundred dollars.

Total under quartermaster, Marine Corps, two million seventy thousand and eighty-nine dollars.

Total Marine Corps, four million nine hundred and fourteen thousand eighty-seven dollars and forty-six cents.

INCREASE OF THE NAVY.

That, for the purpose of further increasing the naval establishment of the United States, the President is hereby authorized to have constructed, by contract or in navy-yards, as hereinafter provided, one first class battle ship to cost, exclusive of armor and armament, not exceeding six million dollars, similar in all essential characteristics, and additional to, the battle ship authorized by the Act making appropriations for the naval service for the fiscal year ending June thirtieth, nineteen hundred and seven, plans and specifications for which last-named vessel have already been prepared and submitted by the Secretary of the Navy for the information of Congress, as required by the provisions of the aforesaid Act.

Two torpedo boat destroyers, to have the highest practicable speed, and to cost, exclusive of armament, not to exceed eight hundred thousand dollars each: *Provided*, That the cost of the three torpedo boat destroyers provided for in the Act making appropriations for the naval service for the fiscal year ending June thirtieth, nineteen hundred and seven, exclusive of armament, shall not exceed eight hundred thousand dollars each.

And the contract for the construction of said vessels shall be awarded by the Secretary of the Navy to the lowest best responsible bidder, having in view the best results and most expeditious delivery; and in the construction of all of said vessels the provisions of the Act of August third, eighteen hundred and eighty-six, entitled "An Act to increase the naval establishment," as to materials for said vessels, their

engines, boilers, and machinery, the contracts under which they are built, the notice of any proposals for the same; the plans, drawings, specifications therefor, and the method of executing said contracts shall be observed and followed, and, subject to the provisions of this Act, all said vessels shall be built in compliance with the terms of said Act, and in all their parts shall be of domestic manufacture; and the steel material shall be of domestic manufacture, and of the quality and characteristics best adapted to the various purposes for which it may be used, in accordance with specifications approved by the Secretary of the Navy; and of the vessels provided for in this Act and the Act making appropriations for the naval service for the fiscal year ending June thirtieth, nineteen hundred and seven, and for other purposes, not more than one battle ship and one torpedo boat destroyer, or two torpedo boat destroyers, shall be built by one contracting party: *Provided*, That the Secretary of the Navy may build any or all of the vessels herein authorized in such navy-yards as he may designate, and shall build any of the vessels herein authorized in such navy-yards as he may designate should it reasonably appear that the persons, firms, or corporations, or the agents thereof, bidding for the construction of any of said vessels have entered into any combination, agreement, or understanding the effect, object, or purpose of which is to deprive the Government of fair, open, and unrestricted competition in letting contracts for the construction of any of said vessels.

That the provision in the Naval Appropriation Act approved June twenty-ninth, nineteen hundred and six, authorizing the Secretary of the Navy to contract for subsurface or submarine boats after certain tests to be completed by March twenty-ninth, nineteen hundred and seven, is hereby amended, in accordance with the recommendation of the Secretary of the Navy, so as to extend the test period until May twenty-ninth, nineteen hundred and seven; and the limit of cost provided for in the authorization aforesaid is hereby increased to three million dollars, and the sum of one million dollars, which includes the half million dollars heretofore appropriated, is hereby appropriated, and to remain available until expended, no part of this appropriation to be expended for any boat that does not in such test prove to be equal in the judgment of the Secretary of the Navy to the best boat now owned by the United States or under contract therefor, and no penalties under this limitation shall be imposed by reason of any delay in the delivery of said boat due to the submission or participation in the comparative trials aforesaid.

CONSTRUCTION AND MACHINERY: On account of hulls and outfits of vessels and steam machinery of vessels heretofore authorized, twelve million seven hundred and thirteen thousand nine hundred and fifteen dollars.

ARMOR AND ARMAMENT: Toward the armament and armor of domestic manufacture for vessels authorized, ten million dollars.

INCREASE OF THE NAVY, EQUIPMENT: Toward the completion of the equipment outfit of the new vessels authorized, five hundred thousand dollars.

Total increase of the Navy, twenty-three million seven hundred and thirteen thousand nine hundred and fifteen dollars.

That no part of any sum appropriated by this Act shall be used for any expense of the Navy Department at Washington unless specific authority be given for such expenditure.

Approved, March 2, 1907.

[PUBLIC—No. 115.]

H. R. 20471.

An Act Making appropriations for the naval service for the fiscal year ending June thirtieth, nineteen hundred and nine, and for other purposes.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the following sums be, and they are hereby, appropriated, to be paid out of any money in the Treasury not otherwise appropriated, for the naval service of the Government for the year ending June thirtieth, nineteen hundred and nine, and for other purposes.

PAY OF THE NAVY.

Pay and allowances prescribed by law of officers on sea duty and other duty; officers on waiting orders; officers on the retired list; clerks to commandants of yards and stations, clerks to paymasters at yards and stations, general storekeepers, receiving ships, and other vessels; two clerks to general inspectors of pay corps; commutation of quarters for officers on shore not occupying public quarters, including boatswains, gunners, carpenters, sailmakers, warrant machinists, pharmacists, and mates, and also naval constructors and assistant naval constructors; for hire of quarters for officers serving with troops where there are no public quarters belonging to the Government, and where there are not sufficient quarters possessed by the United States to accommodate them, or commutation of quarters not to exceed the amount which an officer would receive were he not serving with troops; pay of enlisted men on the retired list; extra pay to men reenlisting under honorable discharge; interest on deposits by men; pay of petty officers, seamen, landsmen, and apprentice seamen, including men in the engineers' force, and men detailed for duty with Naval Militia, and for the Fish Commission, forty-two thousand men; three thousand of the additional men herein authorized may be recruited upon the passage of this Act; and the number of enlisted men shall be exclusive of those undergoing imprisonment with sentence of dishonorable discharge from the service at expiration of such confinement; and as many warrant machinists as the President may from time to time deem necessary to appoint, not to exceed twenty in any one year; and two thousand five hundred apprentice seamen under training at training stations and on board training ships, at the pay prescribed by law, thirty million nine hundred and seventy-four thousand two hundred and twenty-five dollars.

Hereafter all commissioned officers of the active list of the Navy shall receive the same pay and allowances according to rank and length of service, and the annual pay of each grade shall be as follows: For Admiral, thirteen thousand five hundred dollars; rear-admiral, first nine, eight thousand dollars; rear-admiral, second nine, or commodore, six thousand dollars; captain, four thousand dollars; commander, three thousand five hundred dollars; lieutenant-commander, three thousand dollars; lieutenant, two thousand four hundred dollars; lieu-

engines, boilers, and machinery, the contracts under which they are built, the notice of any proposals for the same; the plans, drawings, specifications therefor, and the method of executing said contracts shall be observed and followed, and, subject to the provisions of this Act, all said vessels shall be built in compliance with the terms of said Act, and in all their parts shall be of domestic manufacture; and the steel material shall be of domestic manufacture, and of the quality and characteristics best adapted to the various purposes for which it may be used, in accordance with specifications approved by the Secretary of the Navy; and of the vessels provided for in this Act and the Act making appropriations for the naval service for the fiscal year ending June thirtieth, nineteen hundred and seven, and for other purposes, not more than one battle ship and one torpedo boat destroyer, or two torpedo boat destroyers, shall be built by one contracting party: *Provided*, That the Secretary of the Navy may build any or all of the vessels herein authorized in such navy-yards as he may designate, and shall build any of the vessels herein authorized in such navy-yards as he may designate should it reasonably appear that the persons, firms, or corporations, or the agents thereof, bidding for the construction of any of said vessels have entered into any combination, agreement, or understanding the effect, object, or purpose of which is to deprive the Government of fair, open, and unrestricted competition in letting contracts for the construction of any of said vessels.

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Hereafter all commissioned officers of the active list of the Navy shall receive the same pay and allowances according to rank and length of service, and the annual pay of each grade shall be as follows: For Admiral, thirteen thousand five hundred dollars; rear-admiral, first nine, eight thousand dollars; rear-admiral, second nine, or commodore, six thousand dollars; captain, four thousand dollars; commander, three thousand five hundred dollars; lieutenant-commander, three thousand dollars; lieutenant, two thousand four hundred dollars; lieu-

tenant, junior grade, two thousand dollars; ensign, one thousand seven hundred dollars. There shall be allowed and paid to each commissioned officer below the rank of rear admiral ten per centum of his current yearly pay for each term of five years service in the Army, Navy and Marine Corps. The total amount of such increase for length of service shall in no case exceed forty per centum on the yearly pay of the grade as provided by law: *Provided*, That the annual pay of captain shall not exceed five thousand dollars per annum; of commander, four thousand five hundred dollars per annum; and of lieutenant-commander, four thousand dollars per annum. All officers on sea duty and all officers on shore duty beyond the continental limits of the United States shall while so serving receive ten per centum additional of their salaries and increase as above provided, and such increase shall commence from the date of reporting for duty on board ship or the date of sailing from the United States for shore duty beyond the seas or to join a ship in foreign waters. The pay of midshipmen shall hereafter be six hundred dollars per annum while at the Naval Academy, and one thousand four hundred dollars per annum after graduation from the Naval Academy. The pay of all warrant officers and mates is hereby increased twenty-five per centum, and all paymasters' clerks shall, while on duty, receive the same pay and allowances as warrant officers of like length of service in the Navy. The pay of all active and retired enlisted men of the Navy is hereby increased ten per centum: *Provided further*, That the pay and allowances of chiefs of bureaus in the Navy Department shall be the highest pay of the grade to which they belong, and not below that of rear-admiral of the lower nine, and that the pay and allowances of chaplains in the Navy shall in no case exceed that provided for lieutenant-commanders. Aids to rear-admirals embraced in the nine lower numbers of that grade shall each receive one hundred and fifty dollars additional per annum, and aids to all other rear-admirals, two hundred dollars additional per annum each. When an officer of the Navy has been thirty years in the service, he may, upon his own application, in the discretion of the President, be retired from active service and placed upon the retired list with three-fourths of the highest pay of his grade: *And provided further*, That any officer of the Navy who is now serving or shall hereafter serve as chief of a bureau in the Navy Department, and shall subsequently be retired, shall be retired with the rank, pay and allowances authorized by law for the retirement of such bureau chief. The pay of all commissioned, warrant and appointed officers and enlisted men of the Navy now on the retired list shall be based on the pay, as herein provided for, of commissioned, warrant and appointed officers and enlisted men of corresponding rank and service on the active list; and all pay herein provided shall remain in force until changed by Act of Congress. Nothing herein shall be construed so as to reduce the pay or allowances now authorized by law for any commissioned, warrant or appointed officer or any enlisted man of the active or retired lists of the Navy, and all laws inconsistent with this provision are hereby repealed.

That hereafter immediately upon official notification of the death from wounds or disease contracted in line of duty of any officer or enlisted man on the active list of the Navy and Marine Corps the Paymaster-General of the Navy shall cause to be paid to the widow of such officer or enlisted man, or any person previously designated by

him, an amount equal to six months' pay at the rate received by such officer or enlisted man at the date of his death, less seventy-five dollars in the case of an officer and thirty-five dollars in the case of an enlisted man, to defray expenses of interment, and the residue, if any, of the amount reserved shall be paid subsequently to the designated person. The Secretary of the Navy shall establish regulations requiring each officer and enlisted man to designate the proper person to whom this amount shall be paid in case of death, and said amount shall be paid to that person from funds appropriated for the pay of the Navy and Marine Corps.

PAY, MISCELLANEOUS.

The Secretary of the Navy shall send to Congress at the beginning of its next regular session a complete schedule or list showing the amount in money of all pay under the provisions of this Act and for all allowances for each grade of officers in the Navy, including retired officers, and for all officers included in this Act and for all enlisted men so included.

The estimates for the support of the Navy shall hereafter show, under the head of Pay of the Navy, the sums allowed for pay of officers belonging to the line, to the several departments of the staff, and to the retired list; the estimates to show under each head the amount allowed for pay proper, for increases due to longevity and foreign service, and for pay at sea rates to officers employed on shore; together with the total number of warrant and petty officers and seamen of the several grades and designations, including as to each class the amount allowed for pay proper and for longevity or service increases. The estimates shall include a list giving the rates of pay for all petty officers and other enlisted men of the Navy.

For commissions and interest; transportation of funds; exchange; mileage to officers while traveling under orders in the United States, and for actual personal expenses of officers while traveling abroad under orders, and for traveling expenses of civilian employees, and for actual and necessary traveling expenses of midshipmen while proceeding from their homes to the Naval Academy for examination and appointment as midshipmen; for rent and furniture of buildings and offices not in navy-yards; expenses of courts-martial, prisoners and prisons, and courts of inquiry, boards of inspection, examining boards, with clerks' and witnesses' fees, and traveling expenses and costs; stationery and recording; expenses of purchasing paymasters' offices of the various cities, including clerks, furniture, fuel, stationery, and incidental expenses; newspapers and advertising; copying; care of library, including the purchase of books, photographs, prints, manuscripts, and periodicals; ferriage; tolls, and costs of suits; commissions, warrants, diplomas, and discharges; relief of vessels in distress; recovery of valuables from shipwrecks; quarantine expenses; reports; professional investigation; cost of special instruction at home and abroad, in maintenance of students and attachés and information from abroad, and the collection and classification thereof; all charges pertaining to the Navy Department and its bureaus for ice for the cooling of drinking water on shore (except at naval hospitals), telephone rentals and tolls, telegrams, cablegrams, and postage, foreign and domestic, post-office box rentals; and other necessary and incidental expenses, seven hundred and twenty-three thousand dollars.

CONTINGENT, NAVY: For all emergencies and extraordinary expenses, exclusive of personal services in the Navy Department, or any of its subordinate bureaus or offices at Washington, District of Columbia, arising at home or abroad, but impossible to be anticipated or classified, to be expended on the approval and authority of the Secretary of the Navy, and for such purposes as he may deem proper, sixty-five thousand dollars: *Provided*, That the accounting officers of the Treasury are hereby authorized and directed to allow, in the settlement of accounts of disbursing officers involved, payments made under the appropriation "Contingent, Navy," to civilian employees appointed by the Navy Department for duty in and serving at naval stations maintained in the island possessions during the fiscal year nineteen hundred and nine.

BUREAU OF NAVIGATION.

Transportation: For travel allowance of enlisted men discharged on account of expiration of enlistment; transportation of enlisted men and apprentice seamen at home and abroad, with subsistence and transfers en route, or cash in lieu thereof, transportation to their homes, if residents of the United States, of enlisted men and apprentice seamen discharged on medical survey, with subsistence and transfers en route, or cash in lieu thereof; transportation of sick or insane enlisted men and apprentice seamen to hospitals, with subsistence and transfers en route, or cash in lieu thereof; apprehension and delivery of deserters and stragglers, and for railway guides and other expenses incident to transportation, four hundred and seventy-five thousand dollars.

Recruiting: Expenses of recruiting for the naval service; rent of rendezvous and expenses of maintaining the same; advertising for and obtaining men and apprentice seamen; actual and necessary expenses in lieu of mileage to officers on duty with traveling recruiting parties, one hundred and thirty thousand dollars: *Provided*, That no part of this appropriation shall be expended in recruiting seamen, ordinary seamen, or apprentice seamen, unless a certificate of birth or written evidence, other than his own statement or statement of another based thereon, satisfactory to the recruiting officer showing the applicant to be of age required by naval regulations, shall be presented with the application for enlistment.

Contingent: Advertising, ferriage, continuous-service certificates, discharges, good-conduct badges, and medals for men and boys; purchase of gymnastic apparatus; transportation of effects of deceased officers and enlisted men of the Navy; books for training apprentice seamen and landsmen; maintenance of gunnery and other training classes; packing boxes and materials, and other contingent expenses and emergencies arising under cognizance of the Bureau of Navigation, unforeseen and impossible to classify, twelve thousand four hundred and sixty-two dollars.

Gunnery exercises: Prizes, trophies, and badges for excellence in gunnery exercises and target practice; for the establishment and maintenance of shooting galleries, target houses, targets, and ranges; for hiring established ranges, and for transportation of civilian assistants and equipment to and from ranges, one hundred and thirty thousand dollars.

OUTFITS ON FIRST ENLISTMENT: Outfits for all enlisted men, and apprentice seamen of the Navy on first enlistment, at not to exceed sixty dollars each, nine hundred thousand dollars.

MAINTENANCE OF NAVAL AUXILIARIES: Pay, transportation, shipping, and subsistence of civilian officers and crews of naval auxiliaries and all expenses connected with naval auxiliaries employed in emergencies which can not be paid from other appropriations, five hundred and twenty-five thousand dollars.

NAVAL TRAINING STATION, CALIFORNIA: Maintenance of naval training station, Yerba Buena Island, California, namely: Labor and material; buildings and wharves; general care, repairs, and improvements of grounds, buildings, and wharves; wharfage, ferriage, and street-car fare; purchase and maintenance of live stock, and attendance on same; wagons, carts, implements, and tools, and repairs to same; fire engines and extinguishers; boats and gymnastic implements; models and other articles needed in instruction of apprentice seamen; printing outfit and materials, and maintenance of same; heating, lighting, and furniture; stationery, books, and periodicals; fresh water, and washing; packing boxes and materials; and all other contingent expenses; lectures and suitable entertainments for apprentice seamen: *Provided*, That the sum of four thousand five hundred and sixty-four dollars and five cents is hereby appropriated for the equipment and maintenance of the dispensary, said sum to be immediately available; in all, sixty-five thousand two hundred and sixteen dollars and five cents.

NAVAL TRAINING STATION, RHODE ISLAND: Maintenance of naval training station, Coasters Harbor Island, Rhode Island, namely: Labor and material; building and wharves; dredging channels; extending sea wall; repairs to causeway and sea wall; general care, repairs, and improvements of grounds, buildings, and wharves; wharfage, ferriage, and street-car fare; purchase and maintenance of live stock, and attendance on same; wagons, carts, implements, and tools, and repairs to same; fire engines and extinguishers; boats and gymnastic implements; models and other articles needed in instruction of apprentice seamen; printing outfit and materials, and maintenance of same; heating, lighting, and furniture; stationery, books, and periodicals; fresh water, and washing; packing boxes and materials; and all other contingent expenses; lectures and suitable entertainments for apprentice seamen; in all, seventy-nine thousand five hundred and eleven dollars.

NAVAL TRAINING STATION, GREAT LAKES: Maintenance of naval training station: Labor and material; general care, repairs, and improvements of grounds, buildings, and piers; street-car fare; purchase and maintenance of live stock, and attendance on same; wagons, carts, implements, and tools, and repairs to same; fire extinguishers; heating, lighting, and furniture; stationery, books, and periodicals; washing; packing boxes and materials; and all other contingent expenses, twenty-nine thousand eight hundred and sixty dollars.

For clerical force in the office of commandant as follows: One clerk, at one thousand two hundred dollars; one clerk, at one thousand dollars; one draftsman, at one thousand five hundred dollars; one subinspector, at one thousand five hundred dollars; one foreman of laborers, at one thousand two hundred dollars; one messenger, at five hundred and forty dollars; in all, six thousand nine hundred and forty dollars.

In all, naval training station, Great Lakes, thirty-six thousand eight hundred dollars.

NAVAL WAR COLLEGE, RHODE ISLAND: For maintenance of the Naval War College on Coasters Harbor Island, and care of grounds

for same, twelve thousand three hundred dollars; one draftsman, at one thousand two hundred dollars per year; services of a lecturer on international law, one thousand dollars; services of civilian lecturers rendered at the War College, six hundred dollars; two copyists, at nine hundred dollars each per year; purchase of books of reference, four hundred dollars; one librarian, one thousand four hundred dollars per year; in all, Naval War College, Rhode Island, eighteen thousand seven hundred dollars.

NAVAL HOME, PHILADELPHIA, PENNSYLVANIA: One superintendent of grounds, at seven hundred and twenty dollars; one steward, at seven hundred and twenty dollars; one matron, at four hundred and twenty dollars; one beneficiaries' attendant, at two hundred and forty dollars; one chief cook, at four hundred and eighty dollars; one assistant cook, at three hundred and sixty dollars; one assistant cook, at two hundred and forty dollars; one chief laundress, at one hundred and ninety-two dollars; five laundresses, at one hundred and sixty-eight dollars each; four scrubbers, at one hundred and sixty-eight dollars each; one head waitress, at one hundred and ninety-two dollars; eight waitresses, at one hundred and sixty-eight dollars each; one kitchen servant, at two hundred and forty dollars; eight laborers, at two hundred and forty dollars each; one stable keeper and driver, at three hundred and sixty dollars; one master at arms, at four hundred and eighty dollars; two house corporals, at three hundred dollars each; one barber, at three hundred and sixty dollars; one carpenter, at eight hundred and forty-five dollars; one painter, at eight hundred and forty-five dollars; one engineer for elevator and machinery, six hundred dollars; three laborers, at three hundred and sixty dollars each; three laborers, at three hundred dollars each; total for employees, fourteen thousand six hundred and fifty dollars.

Miscellaneous: Water rent and lighting, two thousand one hundred dollars; cemetery, burial expenses, and headstones, eight hundred dollars; improvement of grounds, seven hundred and eighty dollars; repairs to buildings, boilers, furnances, and furniture, six thousand seven hundred and forty-eight dollars; music in chapel, six hundred dollars; transportation of indigent and destitute beneficiaries to the Naval Home, one hundred dollars; support of beneficiaries, forty-four thousand three hundred and seventy-three dollars; total miscellaneous, fifty-five thousand five hundred and one dollars.

In all, for Naval Home, seventy thousand one hundred and fifty-one dollars, which sum shall be paid out of the income from the naval pension fund: *Provided*, That for the performance of such additional services in and about the Naval Home as may be necessary, the Secretary of the Navy is authorized to employ, on the recommendation of the governor, beneficiaries in said Home, whose compensation shall be fixed by the Secretary and paid from the appropriation for the support of the Home.

For badges and ribbons to be distributed by the Secretary of the Navy to officers and men of the Navy and Marine Corps who have participated in engagements and campaigns deemed worthy of such commemoration, three thousand five hundred dollars.

That the use of irons, single or double, as a form of punishment in the Navy of the United States is hereby abolished, except for the purposes of safe custody or when part of the sentence imposed by a general court-martial.

BUREAU OF ORDNANCE.

ORDNANCE AND ORDNANCE STORES: For procuring, producing, preserving, and handling ordnance material; for the armament of ships; for fuel, material, and labor to be used in the general work of the Ordnance Department; for watchmen at magazines, powder factories, and powder depots; for furniture in ordnance buildings at navy-yards and stations; for maintenance of the proving ground and powder factory, and for target practice, four million five hundred thousand dollars: *Provided*, That no part of this appropriation shall be expended for the purchase of shells or projectiles except for shells or projectiles purchased in accordance with the terms and conditions of proposals submitted by the Secretary of the Navy to all of the manufacturers of shells and projectiles and upon bids received in accordance with the terms and requirements of such proposals. All shells and projectiles shall conform to the standard prescribed by the Secretary of the Navy.

Ammunition and other supplies for ships, two million seven hundred and fifty thousand dollars: *Provided*, That the Secretary of the Navy is hereby authorized to utilize all ammunition and other supplies already on hand under the appropriations "Increase of the Navy; Armor and Armament," "Reserve Ammunition," and "Reserve Powder and Shell," for general issue to ships in commission, as though purchased from this appropriation: *Provided*, That no part of this appropriation shall be expended for the purchase of shells or projectiles except for shells or projectiles purchased in accordance with the terms and conditions of proposals submitted by the Secretary of the Navy to all of the manufacturers of shells and projectiles and upon bids received in accordance with the terms and requirements of such proposals. All shells and projectiles shall conform to the standards prescribed by the Secretary of the Navy.

Purchase and manufacture of smokeless powder, six hundred and fifty thousand dollars.

Machine tools, navy-yard, New York, and magazine, Dover, New Jersey, ten thousand dollars.

Machine tools, navy-yard, Mare Island, California, fifty thousand dollars.

One five-ton auxiliary hoist, building numbered one hundred and eleven, navy-yard, Mare Island, California, three thousand five hundred dollars.

FOR NAVAL GUN FACTORY, WASHINGTON, DISTRICT OF COLUMBIA: New and improved machinery for existing shops, one hundred and fifty thousand dollars.

NEW BATTERIES FOR SHIPS OF THE NAVY: For completing the work of modifying four-inch forty-caliber mounts, and providing new sights; and for modifying five-inch forty-caliber mounts, and providing new sights for same, sixty thousand dollars.

For replacing three-pounder and six-pounder guns, mounts, and sights on board battle ships and armored cruisers by three-inch fifty-caliber, or larger, guns, mounts, and sights, four hundred and fifteen thousand dollars.

For replacing eight-inch Mark V guns (forty-caliber) with eight-inch Mark VI guns (forty-five caliber) on United States ship "Maryland" and class (twenty guns), two hundred and fifty thousand dollars.

To reline and convert twelve-inch Mark III guns to mark IV guns, three hundred and fifty thousand dollars.

For replacing Mark IX Modern two-firing locks with Mark X firing locks on five-inch and six-inch guns, forty-five thousand dollars.

For fire-control instruments for ships, three hundred thousand dollars.

TORPEDOES, AND CONVERTING TORPEDO BOATS: For converting twenty torpedo boats from boats using three and fifty-five one-hundredths meter, to boats using five-meter torpedoes, and for the purchase and manufacture of torpedoes, six hundred and fifty thousand dollars.

TORPEDOES AND APPLIANCES: For the purchase and manufacture of torpedoes and appliances, three hundred thousand dollars.

TORPEDO STATION, NEWPORT, RHODE ISLAND: For labor, material; general care of and repairs to grounds, buildings, and wharves; boats, instruction, instruments, tools, furniture, experiments, and general torpedo outfits, seventy thousand dollars.

ARMING AND EQUIPPING NAVAL MILITIA: For arms, accouterments, signal outfits, boats and their equipment, fuel and clothing, and the printing or purchase of necessary books of instruction for the Naval Militia of the various States, under such regulations as the Secretary of the Navy may prescribe, one hundred thousand dollars.

REPAIRS, BUREAU OF ORDNANCE: For necessary repairs to ordnance buildings, magazines, gun parks, boats, lighters, wharves, machinery, and other items of like character, thirty thousand dollars.

MISCELLANEOUS, BUREAU OF ORDNANCE: For miscellaneous items, namely: Advertising, cartage, expenses of light and water at magazines and stations; tolls, ferriage, technical books, and incidental expenses attending inspection of ordnance material, fourteen thousand and sixty-six dollars.

CIVIL ESTABLISHMENT, BUREAU OF ORDNANCE: Navy-yard, Portsmouth, New Hampshire: For one writer, at one thousand dollars.

Navy-yard, Boston, Massachusetts: For one clerk, at one thousand two hundred dollars.

Torpedo station, Newport, Rhode Island: For one chemist, at two thousand five hundred dollars; one clerk, at one thousand two hundred dollars; one draftsman, at one thousand five hundred dollars; in all, five thousand two hundred dollars.

Navy-yard, New York, New York: For one clerk, at one thousand four hundred dollars.

Navy-yard, Philadelphia, Pennsylvania: For one clerk, at one thousand two hundred dollars.

Navy-yard, Washington, District of Columbia: For one chemist, at two thousand five hundred dollars; two foremen of Gun Factory, at two thousand five hundred dollars each; one ordnance engineer and computing draftsman, three thousand dollars; one chief clerk, at one thousand six hundred dollars; one clerk, at one thousand four hundred dollars; one clerk, at one thousand two hundred dollars; one clerk, at one thousand one hundred dollars; three writers, at one thousand and seventeen dollars and twenty-five cents each; one draftsman, at one thousand eight hundred dollars; three draftsmen, at one thousand and eighty-one dollars each; one assistant draftsman, at seven hundred and seventy-two dollars; two copyists, at seven hundred and twenty dollars each; one telegraph operator and copyist, at one thousand dollars; in all, twenty-seven thousand one hundred and six dollars and seventy-five cents.

Naval proving ground, Indian Head, Maryland: For one clerk, at one thousand two hundred dollars; one foreman of powder factory, two thousand dollars; one chemist for powder factory, two thousand five hundred dollars; one assistant chemist for powder factory, two thousand dollars.

In all, seven thousand seven hundred dollars.

Navy-yard, Norfolk, Virginia: For one clerk, at one thousand two hundred dollars.

Navy-yard, Mare Island, California: For one clerk, at one thousand two hundred dollars.

In all, civil establishment, Bureau of Ordnance, forty-seven thousand two hundred and six dollars and seventy-five cents.

BUREAU OF EQUIPMENT.

EQUIPMENT OF VESSELS: For hemp, wire, iron, and other materials for the manufacture of cordage, anchors, cables, galleys, and chains; specifications for purchase thereof shall be so prepared as shall give fair and free competition; canvas for the manufacture of sails, awnings, hammocks, and other work; water for all purposes on board naval vessels, including the expenses of transportation and storage of the same; stationery for chaplains and for commanding and navigating officers of ships, equipment officers on shore and afloat, and for the use of courts-martial on board ship; the removal and transportation of ashes from ships of war; interior appliances and tools for equipment buildings in navy-yards and naval stations; supplies for seamen's quarters; and for the purchase of all other articles of equipment at home and abroad, and for the payment of labor in equipping vessels and manufacture of equipment articles in the several navy-yards; all pilotage and towage of ships of war; canal tolls, wharfage, dock and port charges, and other necessary incidental expenses of a similar nature; services and materials in repairing, correcting, adjusting, and testing compasses on shore and on board ship; nautical and astronomical instruments, and repairs to same; libraries for ships of war, professional books and papers, and drawings and engravings for signal books; naval signals and apparatus, namely, signals, lights, lanterns, rockets, and running lights; compass fittings, including binnacles, tripods, and other appendages of ships' compasses; logs and other appliances for measuring the ship's way, and leads and other appliances for sounding; lanterns and lamps, and their appendages for general use on board ship for illuminating purposes, and oil and candles used in connection therewith; service and supplies for coast-signal service; bunting and other materials for making and repairing flags of all kinds; photographs, photographic instruments, and materials; musical instruments and music; installing, maintaining, and repairing interior and exterior signal communications and all electrical appliances of whatsoever nature on board naval vessels, except range finders, battle order and range transmitters and indicators, and motors and their controlling apparatus used to operate the machinery belonging to other bureaus, three million seven hundred and fifty thousand dollars.

EQUIPMENT MACHINERY PLANTS: For the purchase and installation of the necessary machinery and tools in the following equipment buildings which have been appropriated for and are nearing completion:

Equipment building at Charleston, fifty thousand dollars;

Equipment building at New Orleans, twenty-five thousand dollars;

Equipment building at Pensacola, twenty-five thousand dollars;

In all, equipment machinery plants, one hundred thousand dollars.

COAL AND TRANSPORTATION: Purchase of coal and other fuel for steamers' and ships' use, and other equipment purposes, including expenses of transportation, storage, and handling the same, and for the general maintenance of naval coaling depots and coaling plants, five million dollars.

CONTINGENT, BUREAU OF EQUIPMENT: Packing boxes and materials, printing, advertising, books, and models; stationery; furniture for equipment of offices in navy-yards; ferriage and emergencies arising under cognizance of the Bureau of Equipment unforeseen and impossible to classify, eleven thousand eight hundred and twenty-one dollars.

OCEAN AND LAKE SURVEYS: Hydrographic surveys, and for the purchase of nautical books, charts, and sailing directions, seventy-five thousand dollars.

DEPOTS FOR COAL: To enable the Secretary of the Navy to execute the provisions of section fifteen hundred and fifty-two of the Revised Statutes, authorizing the Secretary of the Navy to establish at such places as he may deem necessary, suitable depots for coal and other fuel for the supply of steamships of war, four hundred and fifty thousand dollars.

CIVIL ESTABLISHMENT, BUREAU OF EQUIPMENT: Navy-yard, Portsmouth, New Hampshire: For one clerk, at one thousand two hundred dollars; one writer, nine hundred and fifty dollars; in all, two thousand one hundred and fifty dollars.

Navy-yard, Boston, Massachusetts: For one superintendent of ropewalk, at two thousand dollars; one clerk, at one thousand four hundred dollars; one clerk, at one thousand three hundred dollars; one clerk, at one thousand two hundred dollars; two writers, at nine hundred and fifty dollars each; one civil superintendent of chain shop, two thousand dollars; one civil superintendent of anchor shop, two thousand dollars; in all, eleven thousand eight hundred dollars.

Navy-yard, New York, New York: For one clerk, at one thousand four hundred dollars; one clerk, at one thousand two hundred dollars; two writers, at nine hundred and fifty dollars each; one clerk in charge of distribution of books, at one thousand two hundred dollars; in all, five thousand seven hundred dollars.

Navy-yard, Philadelphia, Pennsylvania: For one clerk, at one thousand four hundred dollars; one clerk, at one thousand dollars; in all, two thousand four hundred dollars.

Navy-yard, Washington, District of Columbia: For one clerk, who shall also perform the clerical duties for the board of labor at said navy-yard, one thousand six hundred dollars.

Navy-yard, Norfolk, Virginia: For two clerks, at one thousand two hundred dollars each; one writer, at nine hundred and fifty dollars; in all, three thousand three hundred and fifty dollars.

Naval station, Port Royal, South Carolina: One clerk, one thousand dollars.

Navy-yard, Pensacola, Florida: One clerk, one thousand dollars.

Naval station, Key West, Florida: One clerk, one thousand dollars.

Navy-yard, Mare Island, California: For one clerk, at one thousand two hundred dollars; one clerk, at one thousand dollars; one writer, at nine hundred and fifty dollars; in all, three thousand one hundred and fifty dollars.

Navy-yard, Puget Sound, Washington: One clerk, one thousand dollars; one clerk, one thousand dollars; in all, two thousand dollars.

Naval station, Cavite, Philippine Islands: One master electrician, one thousand eight hundred and seventy-eight dollars; one clerk, one thousand dollars; in all, two thousand eight hundred and seventy-eight dollars.

In all, civil establishment, Bureau of Equipment, thirty-eight thousand and twenty-eight dollars.

BUREAU OF YARDS AND DOCKS.

MAINTENANCE OF YARDS AND DOCKS: For general maintenance of yards and docks, namely: For books, maps, models, and drawings; purchase and repair of fire engines; fire apparatus and plants; machinery; purchase and maintenance of oxen, horses, and driving teams; carts, timber wheels, and all vehicles for use in the navy-yards; tools and repairs of the same; stationery; furniture for Government houses and offices in navy-yards; coal and other fuel; candles, oil, and gas; attendance on light and power plants; cleaning and clearing up yards and care of buildings; attendance on fires, lights, fire engines, and fire apparatus and plants; incidental labor at navy-yards; water tax, tolls, and ferriage; pay of watchmen in navy-yards; awnings and packing boxes, and advertising for yards and docks and other purposes; and for rent of wharf and storehouse at Erie, Pennsylvania, for use and accommodation of United States steamer Wolverine, and for pay of employees on leave, one million two hundred and fifty thousand dollars.

CONTINGENT, BUREAU OF YARDS AND DOCKS: For contingent expenses that may arise at navy-yards and stations, thirty thousand dollars.

CIVIL ESTABLISHMENT, BUREAU OF YARDS AND DOCKS: Navy-yard, Portsmouth, New Hampshire: For one clerk, at one thousand four hundred dollars; one mail messenger at two dollars per diem, including Sundays; one messenger, at six hundred dollars; one foreman laborer and head teamster, at four dollars per diem, including Sundays; one janitor, at six hundred dollars; one pilot, at three dollars per diem, including Sundays; one draftsman, at four dollars per diem; one electrician, one thousand four hundred dollars; one stenographer and typewriter, one thousand dollars; one writer, nine hundred dollars; one telegraph operator and clerk, nine hundred dollars; one draftsman, one thousand two hundred dollars; one master of tugs, one thousand two hundred dollars; in all, thirteen thousand seven hundred and fifty dollars.

Navy-yard, Boston, Massachusetts: For one clerk, at one thousand four hundred dollars; one foreman laborer, at four dollars per diem; one messenger to commandant, at two dollars per diem; one messenger, at two dollars per diem; one mail messenger, at two dollars per diem, including Sundays; one writer, at one thousand and seventeen dollars and twenty-five cents; one draftsman, at five dollars per diem; one master of tugs, at one thousand two hundred dollars; one electrician, at one thousand four hundred dollars; one stenographer and typewriter, at three dollars and twenty-eight cents per diem; one bookkeeper, one thousand two hundred dollars; in all, twelve thousand and sixty-one dollars and seventeen cents.

Navy-yard, New York, New York: For one clerk, at one thousand four hundred dollars; one time clerk, one thousand and seventeen dollars and twenty-five cents; one yard pilot, two thousand dollars; two masters of tugs, at one thousand five hundred dollars each; two writers, at one thousand eight hundred dollars; one foreman laborer, at four dollars and fifty cents per diem; one mail messenger, at two dollars per diem, including Sundays; two messengers, at two dollars and twenty-five cents per diem each; one draftsman, at five dollars per diem; one quartermaster, at three dollars per diem; one superintendent of teams, or quartermaster, at four dollars per diem, including Sundays; one messenger to commandant, at two dollars and twenty-five cents per diem, including Sundays; one messenger, yards and docks, at two dollars and twenty-five cents per diem; one stenographer and typewriter, at three dollars and twenty-six cents per diem; one electrician, at one thousand four hundred dollars; one bookkeeper, or accountant, at one thousand two hundred dollars; one master of tugs, one thousand five hundred dollars; in all, twenty-three thousand one hundred and ninety-six dollars and eighty-nine cents.

Naval station, Sacketts Harbor, New York: For one ship keeper in charge, at three hundred and sixty-five dollars per annum.

Navy-yard, Philadelphia, Pennsylvania: For one clerk, at one thousand four hundred dollars; one writer and telegraph operator, at one thousand dollars; one messenger, at two dollars per diem; one foreman laborer, at four dollars per diem; one master of tugs, at one thousand two hundred dollars; one draftsman, at five dollars per diem; one electrician, at one thousand four hundred dollars; one mail messenger, at two dollars per diem, including Sundays; one master of tugs, at one thousand dollars; one foreman joiner, at four dollars per diem; one stenographer and typewriter, civil engineer's office, one thousand dollars; in all, twelve thousand four hundred and forty-two dollars.

Navy-yard, Washington, District of Columbia: For one clerk, at one thousand four hundred dollars; one messenger, at two dollars per diem; one foreman laborer, at four dollars per diem; one electrician, at one thousand four hundred dollars; one writer, at one thousand and seventeen dollars and twenty-five cents; one time clerk, nine hundred dollars; in all, six thousand six hundred dollars and sixty-nine cents.

Navy-yard, Norfolk, Virginia: For one clerk, at one thousand four hundred dollars; one writer, at one thousand and seventeen dollars and twenty-five cents; one writer, at one thousand dollars; one foreman laborer, at four dollars per diem; one electrician, at one thousand four hundred dollars; one mail messenger, at two dollars per diem, including Sundays; two messengers, at two dollars per diem each; one pilot, at nine hundred dollars; one master of tugs, at one thousand two hundred dollars; one draftsman, one thousand five hundred dollars; one bookkeeper, one thousand two hundred dollars; one foreman mechanic, at four dollars and twenty-four cents per diem; one foreman of teams, at two dollars and twenty-four cents per diem; one messenger and janitor, civil engineer's office, at two dollars per diem, including Sundays; one stenographer and typewriter, civil engineer's office, one thousand two hundred dollars; in all, sixteen thousand eight hundred and twenty-seven dollars and ninety-seven cents.

Navy-yard, Charleston, South Carolina: Commandant's office: One stenographer and typewriter, at three dollars and four cents per diem;

one writer and telegraph operator, at two dollars per diem, including Sundays; one mail messenger, at two dollars per diem, including Sundays; one messenger and janitor, at one dollar and fifty-two cents per diem, including Sundays. Civil engineer's office: One clerk, at one thousand three hundred dollars; one stenographer, at two dollars and eighty cents per diem; one messenger, at one dollar and fifty-two cents per diem; in all, five thousand six hundred and thirty-one dollars and thirty-six cents.

Navy-yard, Pensacola, Florida: For one clerk, at one thousand two hundred dollars; one mail messenger, at two dollars per diem, including Sundays; one electrician, at one thousand four hundred dollars; one draftsman, at four dollars per diem; one foreman laborer, at three dollars and fifty-two cents per diem; one stenographer, typewriter, and telegraph operator, at three dollars and four cents per diem; one writer, at two dollars and eighty cents per diem; in all, seven thousand five hundred and twenty-seven dollars and four cents.

Naval station, Port Royal, South Carolina: One messenger and janitor, one dollar and fifty cents per diem; one telegraph operator, including Sundays, two dollars per diem; in all, one thousand two hundred and three dollars.

Naval station, Key West, Florida: For one mail messenger, at six hundred dollars; one clerk, at one thousand four hundred dollars; one messenger and janitor, at one dollar and seventy-six cents per diem, including Sundays; in all, two thousand six hundred and forty-four dollars and sixteen cents.

Naval station, New Orleans, Louisiana: For one clerk, at one thousand two hundred dollars; one rodman and inspector, at three dollars per diem; one messenger and janitor, at one dollar and fifty cents per diem, including Sundays; one stenographer and typewriter, civil engineer's office, at nine hundred and fifty dollars; one messenger and janitor, civil engineer's office, at two dollars per diem, including Sundays; one foreman laborer, at one thousand two hundred dollars; one draftsman, at one thousand five hundred dollars; one messenger, commandant's office, at two dollars per diem, including Sundays; in all, seven thousand eight hundred and five dollars.

Navy-yard, Mare Island, California: For one clerk, at one thousand four hundred dollars; one writer, at one thousand and seventeen dollars and twenty-five cents; one foreman mason, at six dollars per diem; one foreman laborer, at five dollars and fifty cents per diem; one pilot, at one thousand five hundred dollars per annum; one draftsman, at five dollars per diem; one mail messenger, at two dollars per diem, including Sundays; one messenger, at two dollars per diem; one electrician, at one thousand four hundred dollars; one foreman joiner, at four dollars and fifty-six cents per diem; one telegraph operator, at three dollars and twenty-eight cents per diem; one clerk in civil engineer's office, at one thousand dollars; in all, fifteen thousand three hundred dollars and one cent.

Navy-yard, Puget Sound, Washington: One clerk, at one thousand two hundred dollars; one draftsman, at five dollars per diem; one messenger and janitor, at one dollar and seventy-six cents per diem, including Sundays; one master of tugs, at one thousand two hundred dollars; one copyist, at nine hundred dollars; one electrician, at one thousand two hundred dollars; one writer and telegraph operator, at nine hundred dollars; one stenographer and typewriter, civil engineer's

office, at one thousand dollars; one writer, at nine hundred dollars; one messenger, at one dollar and seventy-six cents per diem; one foreman carpenter, at four dollars and fifty cents per diem, one thousand four hundred and four dollars; in all, eleven thousand four hundred and seventy-nine dollars and eighty cents.

Naval station, San Juan, Porto Rico: One clerk, one thousand two hundred dollars; one writer, commandant's office, nine hundred and sixty dollars; one mail messenger, four hundred and twenty dollars; one foreman, one thousand one hundred dollars; in all, three thousand six hundred and eighty dollars.

Naval station, Hawaii: One writer, at one thousand and seventeen dollars and twenty-five cents per annum; one messenger, at two dollars per diem, including Sundays; in all, one thousand seven hundred and forty-nine dollars and twenty-five cents.

Naval station, Cavite, Philippine Islands: One clerk, one thousand two hundred dollars; one time clerk, four hundred and eighty dollars; one writer, three hundred and sixty dollars; one messenger, two hundred and forty dollars; one messenger, one hundred and eighty dollars; one clerk, commandant's office, seven hundred and twenty dollars; one messenger, commandant's office, one hundred and eighty dollars; in all, three thousand three hundred and sixty dollars.

Naval station, Guam: One clerk, one thousand six hundred dollars; one foreman machinist, one thousand six hundred dollars; one messenger and janitor, six hundred dollars; in all, three thousand eight hundred dollars.

In all, civil establishment, Bureau of Yards and Docks, one hundred and forty-nine thousand six hundred and fifty-two dollars and ninety cents.

PUBLIC WORKS, BUREAU OF YARDS AND DOCKS.

NAVY-YARD, PORTSMOUTH, NEW HAMPSHIRE: Sewer system, extension, six thousand five hundred dollars; to complete blasting in front of quay wall, sixty thousand dollars; storehouse for combustibles, thirty thousand one hundred dollars; railroad extension, ten thousand dollars; heating system, extension, twenty thousand dollars; electric plant, extension, twenty thousand dollars; steam main central power plant to steam engineering plant, nine thousand dollars; naval prison extension, sixty-five thousand dollars; quay walls, extension, twenty-five thousand dollars; in all, two hundred and forty-five thousand six hundred dollars.

NAVY-YARD, BOSTON, MASSACHUSETTS: Railroad rolling stock, three thousand dollars; telephone system, extensions, two thousand dollars; repairs to pier numbered one, five thousand dollars; power plant, extensions, one hundred and fifty thousand dollars; railroad system, extensions, seven thousand dollars; underground conduit system, extension, thirty thousand eight hundred dollars; in all, navy-yard, Boston, one hundred and ninety-seven thousand eight hundred dollars.

NAVY-YARD, NEW YORK, NEW YORK: Electric plant, extensions, forty thousand dollars; underground conduits, extension, twenty-five thousand dollars; central power plant, one hundred and fifteen thousand dollars; railroad equipment, additional, five thousand dollars; sewers and drains, fifteen thousand dollars; railroad system, extensions, fifteen thousand dollars; repairs to roofs of buildings, twenty thousand dollars; telephone system, extensions, twelve thousand dol-

lars; reconstructing roof, power house numbered forty-one, thirty-three thousand dollars; extending chemical laboratory, six thousand dollars; in all, navy-yard, New York, New York, two hundred and eighty-six thousand dollars: *Provided*, That the Secretary of the Navy is hereby authorized to expend toward the general improvement of the water front at the navy-yard, New York, New York, the unexpended balance of the appropriation made by the Act approved June seventh, nineteen hundred, making appropriations for the naval service for the fiscal year ending June thirtieth, nineteen hundred and one, and for other purposes, for the construction of a bascule bridge at said navy-yard: *Provided further*, That the limit of cost of dry dock numbered four at the navy-yard, New York, New York, is hereby fixed at one million five hundred thousand dollars, and the Secretary of the Navy is authorized, in his discretion, to construct said dry dock by contract or day labor, or both, as he may deem to be for the best interests of the Government.

NAVY-YARD, PHILADELPHIA, PENNSYLVANIA: Shelves and wall cases, and so forth, for building numbered four, Supplies and Accounts storehouse, twelve thousand dollars; extension to railroad system, ten thousand dollars; extension of electric conduit system, eight thousand dollars; central power plant, extension, one hundred and fifty thousand dollars; equipment for railroad, five thousand dollars; raising and repairing mess hall at camp, five thousand dollars; in all, navy-yard, Philadelphia, one hundred and ninety thousand dollars.

NAVY-YARD, WASHINGTON, DISTRICT OF COLUMBIA: Quay wall, to complete, twenty-five thousand dollars; storage bins for perishable material, six thousand dollars; machinery for power-plant extension, twelve thousand dollars; electric-light plant extension, five thousand dollars; in all, forty-eight thousand dollars.

NAVY-YARD, NORFOLK, VIRGINIA: Railroad tracks, extensions, fifteen thousand dollars; telephone system, extensions, seven thousand dollars; electric plant, extensions, fifty thousand dollars; repairs, buildings, Saint Helena, twenty-five thousand dollars; central power plant, to complete, two hundred thousand dollars; dredging, to continue, fifty thousand dollars; railroad rolling stock, ten thousand dollars; extension of wharf at dry dock numbered three, fifty thousand dollars; heating system, extensions, ten thousand dollars; compressed-air system, extensions, ten thousand dollars; dry kiln for construction and repair, seven thousand five hundred dollars; renew roof of foundry, building numbered twenty-two, steam engineering, eight thousand dollars; new roof and crane for building numbered twenty-three, steam engineering, sixty thousand dollars; elevator in buildings numbered eleven, thirteen, fourteen, seventeen, and thirty-three, twenty thousand dollars; naval supply storehouse (to cost four hundred and fifty thousand dollars) fifty thousand dollars; improvements to building numbered sixteen, complete, twenty-five thousand dollars; heating building numbered thirty-seven, steam engineering, seven thousand five hundred dollars; improvements to water front, one hundred thousand dollars; in all, navy-yard, Norfolk, Virginia, seven hundred and five thousand dollars.

NAVY-YARD, CHARLESTON, SOUTH CAROLINA: Sewer system, extension, five thousand dollars; heating system, extensions, ten thousand dollars; completing power plant, seventy thousand dollars; slips for torpedo boats, fifty thousand dollars; elevator and interior fittings,

building numbered seven, seventeen thousand dollars; paving and grading (to continue), ten thousand dollars; clearing yard, five thousand dollars; in all, navy-yard, Charleston, South Carolina, one hundred and sixty-seven thousand dollars.

NAVY-YARD, PENSACOLA, FLORIDA: Machinery for central power plant, fifteen thousand dollars; water system, ten thousand dollars; railroad track and equipment, ten thousand dollars; tools for yards and docks, one thousand eight hundred dollars; in all, navy-yard, Pensacola, thirty-six thousand eight hundred dollars.

NAVAL STATION, NEW ORLEANS, LOUISIANA: Drainage system, to continue, five thousand dollars; central heating plant, extension, ten thousand dollars; underground conduit system, five thousand dollars; improvements to machine shop, building numbered four, six thousand dollars; sewer system, extensions, five thousand dollars; improvements to River Front, twenty-five thousand dollars; in all, navy-yard, New Orleans, fifty-six thousand dollars.

NAVY-YARD, MARE ISLAND, CALIFORNIA: Railroad system, extension, ten thousand dollars; telephone system, extensions, two thousand dollars; central power plant at Mare Island Navy-Yard, California, one hundred thousand dollars; grading and paving, extension, fifteen thousand dollars; quay wall, extension, fifty thousand dollars; new elevators in buildings numbered sixty-nine and seventy-one, four thousand dollars; dredging, ten thousand dollars; improvement of channel in Mare Island Strait, to continue, twenty thousand dollars; in all, navy-yard, Mare Island, two hundred and eleven thousand dollars.

NAVY-YARD, PUGET SOUND, WASHINGTON: Electric-light plant, extensions, five thousand dollars; water system, extensions, twelve thousand dollars; heating system, extensions, six thousand dollars; stone and concrete dry dock, to continue (to cost two million dollars), one hundred thousand dollars; sewer system, extensions, three thousand dollars; telephone system, extensions, three thousand dollars; railroad and equipment, extensions, ten thousand dollars; central power plant, extensions, two hundred and eighty thousand dollars; hardwood lumber shed, twenty thousand dollars; water-closet for ships in dock, twelve thousand dollars; oil house, thirty thousand dollars; dry kiln, six thousand dollars; underground conduit system, fifteen thousand dollars; electric elevator and fittings, building numbered fifty-nine, eight thousand dollars; foundry for all departments (to cost one hundred and seventy-five thousand dollars), fifty thousand dollars; in all, navy-yard, Puget Sound, Washington, five hundred and sixty thousand dollars.

NAVAL STATION, OLONGAPO, PHILIPPINE ISLANDS: Toward the improvement and development of the Naval Station, Olongapo, Philippine Islands, one hundred thousand dollars. The Secretary of the Navy is hereby authorized to expend, without limitation as to quantities and unit prices, the various amounts appropriated by the Act approved April twenty-seventh, nineteen hundred and four, entitled "An Act making appropriations for the naval service for the fiscal year ending June thirtieth, nineteen hundred and five, and for other purposes," for the naval station, Olongapo, Philippine Islands, for the respective improvements therein named.

NAVAL STATION, ISLAND OF GUAM: Dredging, three thousand dollars; extension of naval-station roads, ten thousand dollars; water-supply system, ten thousand dollars; fire-protection system, seven thou-

sand five hundred dollars; extension of telephone system, one thousand five hundred dollars; in all, thirty-two thousand dollars.

NAVAL STATION, HONOLULU, HAWAII: Repairs to wharves, six thousand dollars.

NAVAL STATION, PEARL HARBOR, HAWAII: The Secretary of the Navy is hereby authorized and directed to establish a naval station at Pearl Harbor, Hawaii, on the site heretofore acquired for that purpose; and to erect thereat all the necessary machine shops, storehouses, coal sheds, and other necessary buildings, and to build thereat one graving dry dock capable of receiving the largest war vessels of the Navy, at a cost not to exceed two million dollars for said dry dock. The sums hereinafter stated are hereby appropriated and made immediately available, to be expended at the discretion of the Secretary of the Navy, to wit: Toward dredging an entrance channel of a depth of thirty-five feet, four hundred thousand dollars; toward construction of dry dock, three hundred thousand dollars; toward erecting machine shops (to cost three hundred thousand dollars), one hundred thousand dollars; storehouses (to cost three hundred thousand dollars), one hundred thousand dollars; toward yard development, one hundred thousand dollars; in all, one million dollars. That the Secretary of the Navy may, in his discretion, enter into contracts for any portion of the work, including material therefor, within the respective limits of cost herein stipulated, subject to appropriations to be made therefor by Congress, or may direct the construction of said works or any portion thereof under the supervision of a civil engineer of the Navy.

NAVAL STATION, CAVITE, PHILIPPINE ISLANDS: Extension of boat-storage shed, six thousand dollars; improvements to central wharf, five thousand dollars; receiving and shipping shed, five thousand five hundred dollars; improvements to buildings one, two, three, four H, six thousand dollars; improvements to building numbered twenty-nine, four thousand five hundred dollars; improvements to building numbered nine, three thousand five hundred dollars; lumber shed in building numbered eighty-four, one thousand seven hundred dollars; improvements to building numbered twenty-three, six thousand five hundred dollars; improvements to number one ways, sixteen thousand dollars; improvements to building numbered eighty-three, three thousand dollars; railroad system, extension, two thousand dollars; in all, fifty-nine thousand seven hundred dollars.

NAVAL STATION, CULEBRA, PORTO RICO: Clearing and cleaning station, one thousand five hundred dollars; cold-storage plant, four thousand dollars; improvements, water system, one thousand six hundred dollars; sewer system, two thousand dollars; fire-protection system, two thousand dollars; in all, eleven thousand one hundred dollars.

NAVAL STATION, TUTUILA: Dispensary and sick quarters, fifteen thousand dollars.

PLANS AND SPECIFICATIONS FOR PUBLIC WORKS: Navy Department: Plans and estimates required by section thirty-six hundred and sixty-three, Revised Statutes, and plans and specifications for public works, thirty thousand dollars.

REPAIRS AND PRESERVATION AT NAVY-YARDS: For repairs and preservation at navy-yards and stations, six hundred thousand dollars.

FLOATING DERRICKS: One one-hundred ton floating derrick (to cost two hundred and fifty thousand dollars), one hundred thousand dollars.

The Secretary of the Navy is hereby authorized to transfer from the navy-yard, Boston, Massachusetts, to and erect at the navy-yard, Portsmouth, New Hampshire, the one-hundred ton shears improved and repaired under the Acts approved July first, nineteen hundred and two, and March third, nineteen hundred and three, and the unexpended balances of the appropriations made by said Acts for the improvement of said shears are hereby reappropriated, and the further sum of two thousand four hundred dollars is hereby appropriated for this purpose.

Total public works, navy-yards and stations, four million six hundred and fifty-nine thousand four hundred dollars.

The Secretary of the Navy shall report to Congress, at the commencement of the next regular session, the amount of money expended on consolidation of power plants since the authorization for such consolidation was given, in nineteen hundred and four, such statement to be in detail for each navy-yard and to indicate amount expended for building and machinery separately; also to include a statement of the value of building and power plants at each navy-yard at the date of the above noted authorization; also the total amounts appropriated for power houses and power-plant extensions which had not been utilized on April twenty-seventh, nineteen hundred and four, the date of the authorization of the consolidations.

PUBLIC WORKS UNDER THE SECRETARY OF THE NAVY.

BUILDINGS AND GROUNDS, NAVAL ACADEMY: For enlarging the water plant of the Naval Academy, enlarging the reservoir, installing additional pumps, filters, piping, and strainers; and for all other materials and labor for this purpose, forty thousand dollars.

For the erection of three fireproof buildings, to be used as magazines and filling house, and including necessary grading, walks, and landing stage, seven thousand dollars.

BUILDINGS FOR LEPERS, ISLAND OF GUAM: Naval station, island of Guam: Maintenance and care of lepers and other special patients, fifteen thousand dollars; in all, fifteen thousand dollars.

Total public works under Secretary's office, sixty-two thousand dollars.

PUBLIC WORKS UNDER BUREAU OF NAVIGATION.

NAVAL TRAINING STATION, CALIFORNIA, BUILDINGS: Extension of wharf to which Pensacola is moored, twelve thousand dollars; pipe line and tank for dispensary, four thousand dollars; repairs to long wharf, nine thousand dollars; increase of electric plant, two thousand five hundred dollars; roads, grounds, and planting of trees, two thousand dollars; in all, twenty-nine thousand five hundred dollars.

NAVAL TRAINING STATION, RHODE ISLAND, BUILDINGS: Improving and grading grounds and roads, two thousand dollars; dredging channel and basin, three thousand dollars; steam-distributing lines, eight thousand two hundred and fifty dollars; increase of heating and lighting plant, fifteen thousand dollars; electric distributing and lighting system, to increase, eight thousand three hundred and forty dollars; receiving and disinfecting building, thirty thousand dollars; additional detention building, twenty thousand dollars; repairs to barracks "B," nine thousand eight hundred dollars; walks at detention barracks, two thousand dollars; water-closet buildings for workmen, one thousand

five hundred dollars; new wharf to Reina Mercedes, fifteen thousand dollars; for bakery, including scales, refrigerating plant, and necessary equipment to make the same suitable for use in connection with the training of bakers and cooks, twenty-five thousand dollars; in all, naval training station, Rhode Island, one hundred and thirty-nine thousand eight hundred and ninety dollars.

NAVAL TRAINING STATION, GREAT LAKES, BUILDINGS: To complete buildings in accordance with the provisions of the Act of Congress approved June twenty-ninth, nineteen hundred and six, seven hundred and fifty thousand dollars.

To complete electrical mains and conduits, heating mains and concrete conduits, heating station equipment, power plant equipment, water supply and sewage disposal, one hundred and ninety-three thousand one hundred dollars.

Furniture, commandant's quarters, three thousand five hundred dollars.

Furniture, six officers' quarters, nine thousand dollars.

For architect's fee of three and one-half per centum of estimated cost of buildings authorized by Act of Congress, approved June twenty-ninth, nineteen hundred and six, seventy thousand dollars.

For cost of inspection of public works, twenty-five thousand dollars.

For pile revetment and grading at site of sewage-disposal plant, thirty-five thousand dollars.

Construction of trestle to power house, ten thousand dollars.

In all, one million and ninety-five thousand six hundred dollars;

In all, public works, Bureau of Navigation, one million two hundred and sixty-four thousand nine hundred and ninety dollars.

PUBLIC WORKS, BUREAU OF ORDNANCE.

NAVAL PROVING GROUND, INDIAN HEAD, MARYLAND: Providing and laying conduits for chronograph, bell, telephone and power lines, three thousand seven hundred and forty dollars; raising roof of powder-factory storehouse, and so forth, three thousand four hundred and forty dollars; concrete retaining wall, two thousand five hundred dollars; extending machine shop, two thousand and eighty dollars; tide bridge for loading barges, three thousand dollars; in all, naval proving ground, Indian Head, fourteen thousand seven hundred and sixty dollars.

Naval magazine, Fort Mifflin, Pennsylvania: Three filling houses, five thousand one hundred dollars; installation of watchman's clock system, two thousand dollars; to complete one building for marine guard, seven thousand five hundred dollars; in all, fourteen thousand six hundred dollars.

Naval magazine, Mare Island, California: One compressed air locomotive, three thousand five hundred dollars; one hoisting crane on wharf, two thousand dollars; new floors in buildings numbered A one, two, three, and four, six thousand dollars; in all, eleven thousand five hundred dollars.

Naval magazine, New York Harbor: For naval magazine, New York Harbor (Iona Island): Marine barracks, ten thousand dollars; in all, ten thousand dollars.

For naval magazine, navy-yard, Puget Sound, Washington: One fuze house, two thousand two hundred dollars; one observation magazine,

three thousand seven hundred and fifty dollars; one magazine, seven thousand dollars; one watchman's house, four thousand five hundred dollars; one stable, one thousand five hundred dollars; railroad system, fifteen thousand four hundred dollars.

In all, thirty-four thousand three hundred and fifty dollars.

Torpedo station, Newport, Rhode Island: Steel track, six hundred and fifty dollars; new water main across harbor, three thousand five hundred dollars; additional machinery for torpedo factory, fifty thousand dollars; in all, fifty-four thousand one hundred and fifty dollars.

NAVY-YARD, PENSACOLA, FLORIDA: For navy-yard, Pensacola, Florida: Construction of water tank tower, five thousand dollars.

NAVAL MAGAZINE, OLONGAPO, PHILIPPINE ISLANDS: For naval station, Olongapo, Philippine Islands: One chemical laboratory for testing smokeless powder, two thousand dollars; one set of quarters for inspector of ordnance and powder, six thousand dollars.

Total public works under Bureau of Ordnance, one hundred and fifty-two thousand three hundred and sixty dollars.

PUBLIC WORKS UNDER BUREAU OF EQUIPMENT.

NAVAL OBSERVATORY: Grounds and roads: Continuing grading, extending roads and paths, clearing and improving grounds, ten thousand dollars.

PUBLIC WORKS UNDER BUREAU OF MEDICINE AND SURGERY.

Naval hospital, Annapolis, Maryland: For the erection of new wards, eighty-five thousand dollars.

Naval hospital, Norfolk, Virginia: For the renovation of the present hospital buildings and for the erection of new wards, to cost not to exceed two hundred thousand dollars, as authorized by the Act of Congress approved June twenty-ninth, nineteen hundred and six, one hundred thousand dollars.

Naval hospital, Great Lakes: For the erection of naval hospital buildings, to cost not to exceed two hundred and fifty thousand dollars, one hundred thousand dollars.

Naval hospital, Puget Sound, Washington: For the completion of naval hospital buildings, seventy-five thousand dollars, (total cost not to exceed one hundred and fifty thousand dollars,) as authorized by the naval Act of March second, nineteen hundred and seven.

Total public works under Bureau of Medicine and Surgery, three hundred and sixty thousand dollars.

PUBLIC WORKS, MARINE CORPS.

For the completion of marine barracks, navy-yard, Boston, Massachusetts, twenty thousand dollars.

For the completion of the storehouse, marine barracks, navy-yard, New York, New York, thirty thousand dollars.

Barracks and quarters, Marine Corps: To complete three officers' quarters, marine barracks, navy-yard, Philadelphia, Pennsylvania, fifteen thousand dollars.

To complete the quartermaster's depot, Philadelphia, Pennsylvania, the purchase of ground adjoining such building, and addition to depot, seventy thousand dollars.

For the completion of officers' quarters, marine barracks, navy-yard, Norfolk, Virginia, five thousand dollars.

Naval station, Charleston, South Carolina: For the completion of officers' quarters, twenty-five thousand dollars; and for marine barracks, fifty thousand dollars; in all, seventy-five thousand dollars.

To complete officers' quarters, marine barracks, navy-yard, Pensacola, Florida, five thousand dollars.

For installing electric lights and heating system, marine barracks, Sitka, Alaska, five thousand dollars.

For the completion of officers' quarters, naval station, Olongapo, Philippine Islands, ten thousand dollars; and for the construction and completion of amusement room and gymnasium for enlisted men, ten thousand dollars.

For the necessary repairs and improvements to such buildings at the naval station, New London, Connecticut, as have been assigned to the Marine Corps by the Navy Department, ten thousand dollars, which sum shall be in addition to the twenty-five thousand dollars appropriated for this object in the naval appropriation Act, approved June twenty-ninth, nineteen hundred and six.

In all, public works, Marine Corps, two hundred and fifty-five thousand dollars.

BUREAU OF MEDICINE AND SURGERY.

MEDICAL DEPARTMENT: For surgeons' necessities for vessels in commission, navy-yards, naval stations, Marine Corps, and for the civil establishment at the several naval hospitals, navy-yards, naval laboratory, museum of hygiene, and department of instruction, and Naval Academy, two hundred and seventy thousand dollars.

CONTINGENT, BUREAU OF MEDICINE AND SURGERY: For tolls, ferriages, care, transportation, and burial of the dead; advertising, purchase of books and stationery, binding of medical records, unbound books, and pamphlets; hygienic and sanitary investigation and illustration; sanitary and hygienic instruction; purchase and repairs of wagons, automobile-ambulances, and harness; purchase of and feed for horses and cows; trees, plants, garden tools and seeds; furniture and incidental articles for the museum of hygiene and department of instruction, naval dispensary, Washington, naval laboratory, sick quarters at Naval Academy and marine barracks, surgeons' offices and dispensaries at navy-yards and naval stations, surgeons' quarters at naval hospitals; washing for medical department at museum of hygiene and department of instruction, naval dispensary, Washington; naval laboratory, sick quarters at Naval Academy and marine barracks, dispensaries at navy-yards and naval stations, and ships; and for minor repairs on buildings and grounds of the United States Naval Museum of Hygiene and Department of Instruction; for the care, maintenance, and treatment of the insane of the Navy and Marine Corps on the Pacific coast, and all other necessary contingent expenses; in all, sixty thousand dollars.

TRANSPORTATION OF REMAINS: To enable the Secretary of the Navy, in his discretion, to cause to be transferred to their homes the remains of officers and enlisted men of the Navy and Marine Corps who die or are killed in action ashore or afloat, and also to enable the Secretary of the Navy, in his discretion, to cause to be transported to their homes

the remains of civilian employees who die outside of the continental limits of the United States, ten thousand dollars: *Provided*, That the sum herein appropriated shall be available for payment for transportation of the remains of officers and men who have died while on duty at any time since April twenty-first, eighteen hundred and ninety-eight.

REPAIRS, BUREAU OF MEDICINE AND SURGERY: For necessary repairs of naval laboratory, naval hospitals, and appendages, including roads, wharves, outhouses, sidewalks, fences, gardens, farms, and cemeteries, forty-five thousand dollars.

In all, Bureau of Medicine and Surgery, three hundred and eighty-five thousand dollars.

The nurse corps (female) of the United States Navy is hereby established, and shall consist of one superintendent, to be appointed by the Secretary of the Navy, who shall be a graduate of a hospital training school having a course of instruction of not less than two years, whose term of office may be terminated at his discretion, and of as many chief nurses, nurses, and reserve nurses as may be needed: *Provided*, That all nurses in the nurse corps shall be appointed or removed by the Surgeon-General, with the approval of the Secretary of the Navy, and that they shall be graduates of hospital training schools having a course of instruction not less than two years. The appointment of superintendent, chief nurses, nurses, and reserve nurses shall be subject to an examination as to their professional, moral, mental, and physical fitness, and that they shall be eligible for duty at naval hospitals and on board of hospital and ambulance ships and for such special duty as may be deemed necessary by the Surgeon-General of the Navy. Reserve nurses may be assigned to active duty when the necessities of the service demand, and when on such duty shall receive the pay and allowances of nurses: *Provided*, That they shall receive no compensation except when on active duty. The superintendent, chief nurses, and nurses shall respectively receive the same pay, allowances, emoluments, and privileges as are now or may hereafter be provided by or in pursuance of law for the nurse corps (female) of the Army.

The pay of enlisted men of the Hospital Corps shall be the same as that provided for the corresponding ratings of the seaman branch and other staff corps of the Navy.

BUREAU OF SUPPLIES AND ACCOUNTS.

PROVISIONS, NAVY: For provisions and commuted rations for the seamen and marines, which commuted rations may be paid to caterers of messes, in case of death or desertion, upon orders of the commanding officers, commuted rations for officers on sea duty (other than commissioned officers of the line, Medical and Pay Corps, and chief boat-swains, chief gunners, chief sailmakers, chief carpenters), and midshipmen, and commuted rations stopped on account of sick in hospital and credited to the naval hospital fund; subsistence of officers and men unavoidably detained or absent from vessels to which attached under orders (during which subsistence rations to be stopped on board ship and no credit for commutation therefor to be given); labor in general storehouses and paymasters' offices in navy-yards, including naval stations maintained in island possessions under the control of the United States, and expenses in handling stores purchased under the naval supply fund; one chemist, at two thousand five hundred dollars per annum,

and two chemists, at two thousand dollars each per annum, and for the purchase of United States Army emergency rations, as required: *Provided*, That such stores as the Secretary of the Navy may designate may be procured and sold to officers and enlisted men of the Navy and Marine Corps, also to civilian employees at naval stations beyond the continental limits of the United States and in Alaska, under such regulations as the Secretary of the Navy may prescribe.

In all, six million nine hundred and thirty-one thousand one hundred and fifty-three dollars and seventy-five cents.

CONTINGENT, BUREAU OF SUPPLIES AND ACCOUNTS: For fuel, books and blanks, stationery, advertising, furniture and interior fittings for general storehouses and pay offices in navy-yards; coffee mills and repairs thereto; expenses of naval clothing factory and machinery for same, tolls, ferriages, yeoman's stores, safes, newspapers, and other incidental expenses, one hundred and seventy thousand dollars.

Freight, Bureau of Supplies and Accounts: All freight and express charges pertaining to the Navy Department and its bureaus, except the transportation of coal for the Bureau of Equipment, five hundred thousand dollars.

CIVIL ESTABLISHMENT, BUREAU OF SUPPLIES AND ACCOUNTS: Navy-yard, Portsmouth, New Hampshire: In general storehouses: Two bookkeepers, at one thousand two hundred dollars each; one assistant bookkeeper, at seven hundred and twenty dollars; one bill clerk, at one thousand dollars; one assistant clerk, at seven hundred and twenty dollars; one shipping and receiving clerk, at one thousand dollars; in all, five thousand eight hundred and forty dollars.

Navy-yard, Boston, Massachusetts: In general storehouses: One bookkeeper, at one thousand and seventeen dollars and twenty-five cents; one shipping clerk, at one thousand dollars; one receiving clerk, at one thousand dollars; one bookkeeper, at one thousand two hundred dollars. In yard pay office: One writer, at one thousand and seventeen dollars and twenty-five cents; in all, five thousand two hundred and thirty-four dollars and fifty cents.

Naval station, Newport, Rhode Island: In general storehouse (training station): One clerk, at one thousand two hundred dollars. In general storehouse (torpedo station): One clerk, at one thousand two hundred dollars; in all, two thousand four hundred dollars.

Navy-yard, New York, New York: In office of board of inspection: One writer, nine hundred dollars. In general storehouses: Three bookkeepers, at one thousand two hundred dollars each; one assistant bookkeeper, at one thousand dollars; one assistant bookkeeper, at seven hundred and twenty dollars; two receiving clerks, at four dollars each per diem; one assistant receiving clerk, at one thousand and ninety-nine dollars; three shipping clerks, at one thousand dollars each; one bill clerk, at one thousand dollars; one assistant bill clerk, at seven hundred and twenty dollars; two leading men, at two dollars and fifty cents each per diem; five pressmen, at two dollars and seventy-six cents each per diem; one box maker, at three dollars per diem; one engine tender, at three dollars and twenty-six cents per diem; one coffee roaster, at two dollars and fifty cents per diem; one fireman, at two dollars per diem; one messenger, at two dollars and twenty-five cents per diem; one writer, one thousand dollars; one storeman, nine hundred dollars; one principal clerk, provisions and clothing section, one thousand four hundred dollars; one principal clerk, supply-fund

section, one thousand four hundred dollars; one cloth inspector, at four dollars per diem, one thousand two hundred and fifty-two dollars. In yard pay office: One writer, at one thousand and seventeen dollars and twenty-five cents; one messenger, at two dollars and twenty-five cents per diem; in all, thirty-two thousand two hundred and nineteen dollars and nine cents.

Navy-yard, Philadelphia, Pennsylvania: In general storehouse: Two bookkeepers, at one thousand two hundred dollars each; one assistant bookkeeper, at seven hundred and twenty dollars; one bill clerk, at one thousand dollars; one receiving clerk, at one thousand dollars; one shipping clerk, at one thousand dollars. In yard pay office: One writer, at one thousand and seventeen dollars and twenty-five cents; in all, seven thousand one hundred and thirty-seven dollars and twenty-five cents.

Navy-yard, Washington, District of Columbia: In general storehouse: One bookkeeper, at one thousand two hundred dollars; one clerk, at one thousand two hundred dollars; one receiving clerk, at one thousand dollars; one bill clerk, at one thousand dollars; one shipping clerk, at one thousand dollars. In yard pay office: One writer, at one thousand and seventeen dollars and twenty-five cents; in all, six thousand four hundred and seventeen dollars and twenty-five cents.

Naval Academy, Annapolis, Maryland: In general storehouse: One bookkeeper, at one thousand and seventeen dollars and twenty-five cents; one receiving and shipping clerk, at one thousand dollars; in all, two thousand and seventeen dollars and twenty-five cents.

Navy-yard, Norfolk, Virginia: In general storehouses: Two bookkeepers, at one thousand two hundred dollars each; two assistant bookkeepers, at one thousand and seventeen dollars and twenty-five cents each; one bill clerk, at one thousand dollars; one assistant bill clerk, at seven hundred and twenty dollars; two receiving clerks, at nine hundred and forty-two dollars each. In yard pay office: One writer, at one thousand and seventeen dollars and twenty-five cents; in all, nine thousand and fifty-five dollars and seventy-five cents.

Naval station, Key West, Florida: One clerk, one thousand two hundred dollars; in all, one thousand two hundred dollars.

Navy-yard, Mare Island, California: In general storehouse: Two bookkeepers, at one thousand two hundred dollars each; two assistant bookkeepers, at seven hundred and twenty dollars each; one receiving clerk, at one thousand dollars; one shipping clerk, at one thousand dollars; one bill clerk, at one thousand dollars; one clerk, at one thousand dollars; one assistant clerk, at one thousand dollars. In yard pay office: One writer, at one thousand and seventeen dollars and twenty-five cents; in all, nine thousand eight hundred and fifty-seven dollars and twenty-five cents.

Navy-yard, Puget Sound, Washington: In general storehouses: One principal clerk, one thousand four hundred dollars; two bookkeepers at one thousand two hundred dollars each, two thousand four hundred dollars; one bill clerk, one thousand dollars; one receiving clerk, one thousand dollars; one shipping clerk, one thousand dollars; in all, six thousand eight hundred dollars.

Naval station, Cavite, Philippine Islands: In general storehouses: One clerk, at one thousand six hundred dollars; one bookkeeper, at one thousand four hundred dollars; three assistant bookkeepers, at one thousand two hundred dollars each, three thousand six hundred dollars;

one shipping and bill clerk, at one thousand two hundred dollars; three storekeepers, at one thousand dollars each, three thousand dollars; one receiving clerk, at one thousand two hundred dollars; one shipping clerk, at one thousand dollars; one assistant clerk, at one thousand dollars; two store men, at nine hundred dollars each; in all, fifteen thousand eight hundred dollars.

In all, civil establishment, Bureau of Supplies and Accounts, one hundred and three thousand nine hundred and seventy-eight dollars and thirty-four cents.

BUREAU OF CONSTRUCTION AND REPAIR.

CONSTRUCTION AND REPAIR OF VESSELS: For preservation and completion of vessels on the stocks and in ordinary; purchase of materials and stores of all kinds; steam steerers, pneumatic steerers, steam capstans, steam windlasses, and all other auxiliaries; labor in navy-yards and on foreign stations; purchase of machinery and tools for use in shops; carrying on work of experimental model tank; designing naval vessels; construction and repair of yard craft, lighters, and barges; wear, tear, and repair of vessels afloat; general care, increase, and protection of the Navy in the line of construction and repair; incidental expenses for vessels and navy-yards, inspectors' offices, such as advertising, photographing, books, professional magazines, plans, stationery, and instruments for drafting room, eight million dollars: *Provided*, That no part of this sum shall be applied to the repair of any wooden ship, when the estimated cost of such repairs, to be appraised by a competent board of naval officers, shall exceed ten per centum of the estimated cost, appraised in like manner, of a new ship of the same size and like material: *Provided further*, That no part of this sum shall be applied to the repair of any other ship when the estimated cost of such repairs, to be appraised by a competent board of naval officers, shall exceed twenty per centum of the estimated cost, appraised in like manner, of a new ship of the same size and like material: *Provided further*, That nothing herein contained shall deprive the Secretary of the Navy of the authority to order repairs of ships damaged in foreign waters or on the high seas, so far as may be necessary to bring them home. And the Secretary of the Navy is hereby authorized to make expenditures from appropriate funds under the various bureaus for repairs and changes on the vessels herein named in an amount not to exceed the sum specified for each vessel, respectively, as follows: The Brooklyn, four hundred and fifty-three thousand five hundred dollars; the San Francisco, six hundred thousand two hundred and fifty dollars; the Baltimore, six hundred and fifty-three thousand three hundred dollars; the Alabama, six hundred and sixty-seven thousand five hundred dollars; the Illinois, six hundred and sixty-seven thousand five hundred dollars; the Iowa, five hundred and fifty-seven thousand five hundred dollars; the Kearsarge, six hundred and seventy-three thousand five hundred dollars; the Kentucky, six hundred and seventy-three thousand five hundred dollars; the Maine, two hundred thousand dollars; the Adder, forty-six thousand five hundred dollars; the Bennington, one hundred and ninety-five thousand seven hundred and fifty dollars; the Grampus, fifty-seven thousand five hundred dollars; the Moccasin, forty-six thousand five hundred dollars; the Pike, fifty-seven thousand five hundred dollars; the Paul

Jones, seventy-seven thousand dollars; the Nicholson, fifty-five thousand dollars; the O'Brien, fifty-five thousand dollars; the Narkeeta, nineteen thousand dollars; the Holland, thirty-two thousand dollars and eighty-eight cents; in all, five million seven hundred and eighty-eight thousand three hundred dollars and eighty-eight cents, as per the report of the Secretary of the Navy, House Document Numbered Six hundred and fifty-six, Sixtieth Congress and letters of the Secretary of the Navy of April twentieth, nineteen hundred and eight, concerning general repairs to the Maine.

IMPROVEMENT OF CONSTRUCTION PLANTS: Construction plant, navy-yard, Portsmouth, New Hampshire: Repairs to, and improvements of, plant at navy-yard, Portsmouth, New Hampshire, fifteen thousand dollars.

Construction plant, navy-yard, Boston, Massachusetts: Repairs to, and improvement of, plant at navy-yard, Boston, Massachusetts, twenty thousand dollars.

Construction plant, navy-yard, New York, New York: Repairs to, and improvement of, plant at navy-yard, New York, New York, twenty thousand dollars.

Construction plant, navy-yard, Philadelphia, Pennsylvania: Repairs to, and improvement of, plant at navy-yard, Philadelphia, Pennsylvania, fifteen thousand dollars.

Construction plant, navy-yard, Norfolk, Virginia: Repairs to, and improvement of, plant at navy-yard, Norfolk, Virginia, twelve thousand dollars.

Construction plant, navy-yard, Charleston, South Carolina: Repairs to, and improvement of, plant at naval station, Charleston, South Carolina, twenty thousand dollars.

Construction plant, navy-yard, Pensacola, Florida: Repairs to, and improvement of, plant at navy-yard, Pensacola, Florida, fifteen thousand dollars.

Construction plant, naval station, New Orleans, Louisiana: Repairs to, and improvement of, plant at naval station, New Orleans, Louisiana, ten thousand dollars.

Construction plant, navy-yard, Mare Island, California: Repairs to, and improvement of, plant at navy-yard, Mare Island, California, fifteen thousand dollars.

Construction plant, navy-yard, Puget Sound, Washington: Repairs to, and improvement of, plant at navy-yard, Puget Sound, Washington, twenty thousand dollars.

CIVIL ESTABLISHMENT, BUREAU OF CONSTRUCTION AND REPAIR: Navy-yard, Portsmouth, New Hampshire: One clerk to naval constructor, at one thousand four hundred dollars; two writers, at one thousand and seventeen dollars and twenty-five cents each; in all, three thousand four hundred and thirty-four dollars and fifty cents.

Navy-yard, Boston, Massachusetts: One clerk to naval constructor, at one thousand four hundred dollars; two writers, at one thousand and seventeen dollars and twenty-five cents each; in all, three thousand four hundred and thirty-four dollars and fifty cents.

Navy-yard, New York, New York: One clerk to naval constructor, at one thousand four hundred dollars; three clerks, at one thousand two hundred dollars each; three clerks, at one thousand one hundred dollars each; three writers, at one thousand and seventeen dollars and twenty-five cents each; in all, eleven thousand three hundred and fifty-one dollars and seventy-five cents.

Navy-yard, Philadelphia, Pennsylvania: One clerk to naval constructor, at one thousand four hundred dollars; one writer, at one thousand and seventeen dollars and twenty-five cents; in all, two thousand four hundred and seventeen dollars and twenty-five cents.

Navy-yard, Washington, District of Columbia: One clerk to naval constructor, at one thousand four hundred dollars.

Navy-yard, Norfolk, Virginia: One clerk to naval constructor, at one thousand four hundred dollars; two writers, at one thousand and seventeen dollars and twenty-five cents each; in all, three thousand four hundred and thirty-four dollars and fifty cents.

Navy-yard, Charleston, South Carolina: One clerk to naval constructor, one thousand four hundred dollars.

Navy-yard, Pensacola, Florida: One clerk to naval constructor, at one thousand two hundred dollars; one writer, at one thousand and seventeen dollars and twenty-five cents; in all, two thousand two hundred and seventeen dollars and twenty-five cents.

Naval station, New Orleans, Louisiana: One clerk to naval constructor, one thousand two hundred dollars.

Navy-yard, Mare Island, California: One clerk to naval constructor, at one thousand four hundred dollars; two writers, at one thousand and seventeen dollars and twenty-five cents each; in all, three thousand four hundred and thirty-four dollars and fifty cents.

Navy-yard, Puget Sound, Washington: One clerk to naval constructor, one thousand four hundred dollars; one clerk, at one thousand dollars; one clerk, at nine hundred dollars; in all, three thousand three hundred dollars.

Naval station, Cavité, Philippine Islands: One clerk to naval constructor, one thousand four hundred dollars; two clerks, at one thousand two hundred dollars each, two thousand four hundred dollars; in all, three thousand eight hundred dollars.

In all, civil establishment, Bureau of Construction and Repair, forty thousand eight hundred and twenty-four dollars and twenty-five cents.

BUREAU OF STEAM ENGINEERING.

STEAM MACHINERY: For completion, repairing, and preservation of machinery and boilers of naval vessels, including cost of new boilers; distilling, refrigerating, and auxiliary machinery; preservation of and small repairs to machinery and boilers in vessels in ordinary, receiving, and training vessels; repair and care of machinery of yard tugs and launches, three million seven hundred and fifty thousand dollars: *Provided*, That so much of the foregoing appropriation and of the current appropriation for steam machinery, as may be necessary, may be used to complete the machinery of the seagoing tugs Patapsco and Patuxent, now building at the navy-yards at Portsmouth, New Hampshire, and Norfolk, Virginia.

For purchase, handling, and preservation of all material and stores; purchase, fitting, repair, and preservation of machinery and tools in navy-yards and stations, and running yard engines, two million two hundred and fifty thousand dollars.

For incidental expenses for navy vessels, yards, such as advertising, photographing, books, stationery, office furnishings, and instruments, six thousand dollars.

In all, steam machinery, six million and six thousand dollars.

Machinery plant, navy-yard, Portsmouth, New Hampshire: To outfit new shops, authorized and completed or nearly completed, especially the new boiler and pattern shops, with new power tools, and with the necessary fixtures and motors, and to replace obsolete and worn-out machine tools, thirty thousand dollars; in all, thirty thousand dollars.

Machinery plant, navy-yard, Boston, Massachusetts: For additional machine tools for boiler shop extension and the coppersmith shop, twenty-five thousand dollars.

Machinery plant, navy-yard, New York, New York: For additional machine tools for copper, boiler, machine and pattern shops, and foundry, forty thousand dollars.

Machinery plant, Philadelphia, Pennsylvania: For additional machine tools for machine and boiler shops, twenty-five thousand dollars.

Machinery plant, navy-yard, Norfolk, Virginia: For additional machine tools to equip machine and boiler shop, and for the new blacksmith and coppersmith shops, twenty-five thousand dollars.

Machinery plant, navy-yard, Pensacola, Florida: For purchase of modern tools for use in repair of naval vessels, to replace others worn out, ten thousand dollars.

Machinery plant, naval station, New Orleans, Louisiana: To continue purchase and installation of new machine tools to equip shops for repair of naval vessels, ten thousand dollars.

Machinery plant, navy-yard, Mare Island, California: For additional new machine tools required in new and repair work of naval vessels, twenty-five thousand dollars.

Machinery plant, navy-yard, Puget Sound, Washington: For additional new machine tools required in repair work of naval vessels, twenty-five thousand dollars.

Machinery plant, naval station, Cavite, Philippine Islands: For additional machine tools, fifteen thousand dollars.

Machinery plant, naval station, Olongapo, Philippine Islands: For machine tools required for equipment of shops for repair work, twenty-five thousand dollars.

Engineering experimental station, United States Naval Academy, Annapolis, Maryland—Salaries: One draftsman to engineering staff at the laboratory, one thousand eight hundred dollars; one clerk to engineering staff at the laboratory, one thousand two hundred dollars; one skilled mechanic, one thousand two hundred dollars; one skilled mechanic, seven hundred and twenty dollars; one messenger, who shall also be janitor, six hundred dollars; in all, five thousand five hundred and twenty dollars.

Experimental and research work: For original investigation and extended experimentation of naval appliances; and for the purchase of such machines and auxiliaries considered applicable for test and use in the naval service, twenty-five thousand dollars.

CIVIL ESTABLISHMENT, BUREAU OF STEAM ENGINEERING: Navy-yard, Portsmouth, New Hampshire: One clerk to department, at one thousand two hundred dollars; one messenger, at six hundred dollars; in all, one thousand eight hundred dollars.

Navy-yard, Boston, Massachusetts: One clerk to department, one thousand four hundred dollars.

Navy-yard, New York, New York: One clerk to department, at one thousand four hundred dollars; one writer, at one thousand dollars; one messenger, at six hundred dollars; in all, three thousand dollars.

Navy-yard, Philadelphia, Pennsylvania: One clerk to department, at one thousand two hundred dollars.

Navy-yard, Washington, District of Columbia: One clerk to department, one thousand two hundred dollars.

Navy-yard, Norfolk, Virginia: One clerk to department, at one thousand three hundred dollars; one messenger, at six hundred dollars; in all, one thousand nine hundred dollars.

Navy-yard, Charleston, South Carolina: One clerk to department, one thousand two hundred dollars.

Navy-yard, Pensacola, Florida: One writer, one thousand dollars.

Navy-yard, Mare Island, California: One clerk to department, at one thousand four hundred dollars; one writer, at one thousand dollars; one messenger, at six hundred dollars; in all, three thousand dollars.

Navy-yard, Puget Sound, Washington: One clerk to department, one thousand two hundred dollars; one writer, one thousand dollars; in all, two thousand two hundred dollars.

In all, civil establishment, Bureau of Steam Engineering, seventeen thousand nine hundred dollars.

NAVAL ACADEMY.

PAY OF PROFESSORS AND OTHERS, NAVAL ACADEMY: One professor as head of the department of physics, three thousand six hundred dollars.

One professor of mathematics, one of mechanical drawing, one of English, one of French, and one of Spanish, at three thousand dollars each.

Three professors, namely, one of English, one of French, and one of Spanish, at two thousand six hundred and forty dollars each.

Five instructors, at two thousand four hundred dollars each.

Four instructors, at two thousand one hundred and sixty dollars each.

Ten instructors, at one thousand eight hundred dollars each.

One sword master, at one thousand five hundred dollars; one assistant, at one thousand two hundred dollars, and two assistants, at one thousand dollars each; one instructor in gymnastics, at one thousand two hundred dollars; one assistant librarian, at one thousand eight hundred dollars; one cataloguer, at one thousand one hundred dollars; two shelf assistants, at nine hundred dollars each; one secretary of the Naval Academy, at one thousand eight hundred dollars; two clerks to the superintendent, at one thousand two hundred dollars each; one clerk to the superintendent, at one thousand dollars; one clerk to the commandant of midshipmen, at one thousand two hundred dollars; one writer to the commandant of midshipmen, at seven hundred and twenty dollars; one clerk to the paymaster, at one thousand four hundred and forty dollars; one clerk to the paymaster, at one thousand two hundred dollars; one dentist, at one thousand six hundred dollars; one baker, at six hundred dollars; one mechanic in department of physics, at seven hundred and thirty dollars; one mechanic in the department of ordnance, at nine hundred and fifty-one dollars and fifty-two cents; one mechanic in the department of ordnance, at seven hundred and fifty-one dollars and twenty cents; one cook, at three hundred and twenty-five dollars and fifty cents; one messenger to the superintendent, at six hundred

dollars; one armorer, at six hundred and forty-nine dollars and fifty cents; one chief gunner's mate, at five hundred and twenty-nine dollars and fifty cents; three quarter gunners, at four hundred and sixty-nine dollars and sixty-eight cents each; one coxswain, at four hundred and sixty-nine dollars and fifty cents; three seamen in the department of seamanship, at three hundred and ninety-seven dollars and fifty cents each; twenty attendants at recitation rooms, library, store, chapel, armory, gymnasium, and offices, at three hundred dollars each; one bandmaster, at one thousand two hundred dollars; twenty-one first-class musicians, at four hundred and twenty dollars each; seven second-class musicians, at three hundred and sixty dollars each; services of organist at chapel, three hundred dollars; one assistant instructor in gymnastics, one thousand dollars; one clerk to the superintendent, nine hundred dollars; one assistant baker, five hundred and forty dollars; one mechanic in department of physics, seven hundred and twenty dollars; one cook, six hundred dollars; two instructors in physical training, at one thousand five hundred dollars each; one clerk to the commandant of midshipmen, one thousand dollars; one electrical machinist in department of physics, one thousand dollars; one chief cook, one thousand two hundred dollars; two cooks, at six hundred dollars each, one thousand two hundred dollars; one steward, one thousand two hundred dollars; one assistant steward, six hundred dollars; one head waiter, seven hundred and twenty dollars; two assistant head waiters, at four hundred and eighty dollars each, nine hundred and sixty dollars; two pantry men, at four hundred and twenty dollars each, eight hundred and forty dollars; one assistant baker, four hundred and twenty dollars; eight assistant cooks, at three hundred dollars each, two thousand four hundred dollars; necessary waiters, at sixteen dollars per month each, thirteen thousand four hundred and forty dollars; in all, one hundred and forty-five thousand nine hundred and eight dollars and twenty-six cents.

The Secretary of the Treasury is hereby authorized and directed to close and balance as expended the sum of twenty-four thousand five hundred dollars now standing on the books of the Treasury under the appropriation "Pay of the Navy," which was advanced by direction of the Secretary of the Navy in eighteen hundred and sixty-seven and eighteen hundred and sixty-eight, and has heretofore been used as a midshipmen's store fund at the Naval Academy: *Provided*, That hereafter the storekeeper at the Naval Academy, authorized by section fifteen hundred and twenty-seven of the Revised Statutes, shall render quarterly returns of property to the Chief of the Bureau of Supplies and Accounts, under such regulations as the Secretary of the Navy may prescribe. A full report shall be made annually of receipts and expenditures by the Chief of the Bureau of Supplies and Accounts to the Secretary of the Navy: *And provided further*, That an inspection of the storekeeper's accounts shall be made quarterly by the general inspector of the Pay Corps, with such recommendation as he may deem necessary, to the Chief of the Bureau of Supplies and Accounts.

Navy bands or members thereof, other than the United States Naval Academy band at Annapolis, Maryland, shall not receive remuneration for furnishing music outside the limits of military posts, when the furnishing of such music places them in competition with local civilian musicians.

PAY OF WATCHMEN, MECHANICS, AND OTHERS, NAVAL ACADEMY: Captain of the watch, and weigher, at two dollars and fifty cents per diem; second captain of the watch, at two dollars and twenty-four cents per diem; twenty-two watchmen, at two dollars per diem each; foreman of steam heating works of the academy, at five dollars per diem; labor at power house for masons, carpenters, and other mechanics, laborers, and attendants; and for care of buildings and grounds, wharves, and boats; in all, one hundred and twenty-five thousand dollars.

PAY OF STEAM EMPLOYEES, NAVAL ACADEMY: Pay of mechanics, attendants, and others in department of steam engineering, twenty thousand three hundred and forty-three dollars and six cents.

Special course, Naval Academy: Purchase of apparatus and materials for instruction of midshipmen in physical training and athletics, and for all expenses of lectures, including the pay of the lecturer, five thousand dollars.

REPAIRS, NAVAL ACADEMY: Necessary repairs of public buildings, wharves, and walls inclosing the grounds of the Naval Academy, improvements, repairs, furniture, and fixtures, thirty thousand dollars.

HEATING AND LIGHTING, NAVAL ACADEMY: Fuel, oil, waste, and other materials for the operation, repair, and maintenance of the plant; heating and lighting apparatus and tools; and for heating and lighting the academy and bandsmen's quarters, sixty thousand dollars.

CONTINGENT, NAVAL ACADEMY: Purchase, binding, and repair of books for the library and text-books for the use of instructors (to be purchased in open market on the written order of the superintendent), two thousand five hundred dollars; stationery, blank books, models, and maps, two thousand five hundred dollars; expenses of the Board of Visitors of the Naval Academy, being mileage and five dollars per diem for each member for expenses during actual attendance at the academy, and for supplying necessary outfit for the Board house, and for clerk hire, carriages, and other incidental and necessary expenses of the Board, two thousand dollars; purchase of chemicals, apparatus, and instruments in the department of physics and for repairs of the same, three thousand dollars; purchase of gas and steam machinery, steam pipes and fittings, rent of buildings for the use of the academy, commutation of rent for bandsmen, at eight dollars per month each, cartage, water, music, musical and astronomical instruments, uniforms for the bandsmen, feed and maintenance of teams, current expenses, and repairs of all kinds, and for incidental labor and expenses not applicable to any other appropriation, sixty thousand dollars; stores, stationery, periodicals, materials, apparatus, machinery, tools, and fittings; for use in the department of marine engineering and naval construction, for purposes of instruction, repairs of apparatus, tools, and machinery, care and cleaning of building and its equipment, and for all other necessary purposes, twelve thousand five hundred dollars; for contingencies for the superintendent of the academy, to be expended in his discretion, two thousand dollars; apparatus for the instruction of midshipmen in the various academic departments, fifteen thousand dollars; for care of rifle range, one thousand two hundred and seventy-seven dollars and four cents; in all, one hundred thousand seven hundred and seventy-seven dollars and four cents.

In all, Naval Academy, four hundred and eighty-seven thousand and twenty-eight dollars and thirty-six cents.

MARINE CORPS.

PAY, MARINE CORPS: For pay and allowances prescribed by law of officers on the active list, seven hundred and twenty-one thousand seven hundred and thirteen dollars: *Provided*, That so much of the foregoing appropriation as is needed to pay the additional officers of the Marine Corps provided for in this Act shall be immediately available.

For pay of officers prescribed by law, on the retired list: For one major-general, seven brigadier-generals, two colonels, eight lieutenant-colonels, five majors, seven captains, nine first lieutenants, and four second lieutenants, and for officers who may be placed thereon during the year, including such increased pay as is now or may hereafter be provided for retired officers regularly assigned to active duty, one hundred and fifteen thousand dollars.

Pay of enlisted men, active list: Pay of noncommissioned officers, musicians, and privates, as prescribed by law; and the number of enlisted men shall be exclusive of those undergoing imprisonment with sentence of dishonorable discharge from the service at expiration of such confinement, and for the expenses of clerks of the United States Marine Corps traveling under orders, and including additional compensation for enlisted men of the Marine Corps regularly detailed as gun pointers, cooks, messmen, signalmen, or holding good-conduct medals, pins, or bars, including interests on deposits by enlisted men, and the authorized travel allowance of discharged enlisted men and for prizes for excellence in gunnery exercise and target practice, both afloat and ashore, two million one hundred and two thousand six hundred and eight dollars: *Provided*, That so much of the foregoing appropriation as is needed to pay the additional enlisted men of the Marine Corps provided for in this Act shall be immediately available.

For pay and allowances prescribed by law of enlisted men on the retired list: For three sergeant-majors, one drum-major, seventeen gunnery-sergeants, seventeen quartermaster-sergeants, fourteen first sergeants, forty-nine sergeants, eleven corporals, seventeen first-class musicians, one drummer, one trumpeter, and forty-three privates, and for those who may be retired during the fiscal year, eighty-four thousand four hundred and sixty-nine dollars.

That from and after the passage of this Act, and in order to further increase the efficiency of the United States Marine Corps, the following additional officers, noncommissioned officers, drummers, trumpeters, and privates to those now provided by law for said corps are hereby authorized and directed, namely: One major-general commandant, in lieu of the present brigadier-general commandant; one colonel; one lieutenant-colonel; two majors; eighteen captains; seven first lieutenants; fourteen second lieutenants; one assistant adjutant and inspector, with the rank of lieutenant-colonel; one assistant quartermaster, with the rank of lieutenant-colonel; one assistant quartermaster, with the rank of major; and three assistant quartermasters, with the rank of captain; one assistant paymaster, with the rank of major; one assistant paymaster, with the rank of captain; two sergeant-majors; fifteen quartermaster-sergeants, five of whom are to serve in the pay department; twenty first sergeants; fifty sergeants; one hundred and twenty-five corporals; ten drummers; ten trumpeters; and five hundred and eighteen privates: *Provided*, That hereafter the

number of enlisted men in the United States Marine Corps shall be such as the Congress may from time to time authorize.

That the vacancies now existing in the line and staff departments of the United States Marine Corps and those created by this Act shall be filled in the manner provided by law.

To meet the increase in pay of the Marine Corps provided in the Act making appropriation for the support of the Army for the fiscal year ending June thirtieth, nineteen hundred and nine, and in section sixteen hundred and twelve of the Revised Statutes of the United States, for officers on the active list, officers on the retired list, enlisted men on the active list, and enlisted men on the retired list, eight hundred and two thousand seven hundred and fifty dollars and fifty-five cents is hereby appropriated: *Provided*, That so much of the foregoing appropriation as is needed to pay the increase for the remainder of the fiscal year ending June thirtieth, nineteen hundred and eight, shall be immediately available.

Undrawn clothing: For payment to discharged soldiers for clothing undrawn, one hundred and two thousand seven hundred and seven dollars and eighty cents.

Mileage: For mileage to officers traveling under orders without troops, fifty thousand dollars.

For commutation of quarters of officers on duty without troops where there are no public quarters, thirty-three thousand five hundred dollars.

PAY OF CIVIL FORCE: In the office of the Brigadier-General Commandant: One chief clerk, at one thousand six hundred dollars; one clerk, at one thousand two hundred dollars; one messenger, at nine hundred and seventy-one dollars and twenty-eight cents.

In the office of the paymaster: One chief clerk, at one thousand six hundred dollars; one clerk, at one thousand five hundred dollars; one clerk, at one thousand two hundred dollars.

In the office of each assistant paymaster: One clerk, at one thousand four hundred dollars.

In the office of the adjutant and inspector: One chief clerk, at one thousand six hundred dollars; one clerk, at one thousand five hundred dollars.

In the office of the assistant adjutant and inspector: One clerk, at one thousand two hundred dollars.

In the office of the quartermaster: One chief clerk, at one thousand six hundred dollars; one clerk, at one thousand five hundred dollars; two clerks, at one thousand two hundred dollars each; one draftsman, at one thousand six hundred dollars.

In the office of the assistant quartermaster, Washington, District of Columbia, or San Francisco, California: Two clerks, at one thousand four hundred dollars each; two clerks, for duty in the Philippine Islands, one in Pay and one in Quartermaster's Department, at one thousand four hundred dollars each.

In the office of the assistant quartermaster, Philadelphia, Pennsylvania: One clerk, at one thousand six hundred dollars; one messenger, at eight hundred and forty dollars; in the Quartermaster's Department, for duty where their services are required, two clerks at one thousand four hundred dollars each.

In all, for pay of civil force, thirty-four thousand five hundred and eleven dollars and twenty-eight cents; and the money herein specifically

appropriated for pay of the Marine Corps shall be disbursed and accounted for in accordance with existing law as pay of the Marine Corps, and for that purpose shall constitute one fund.

In all, pay Marine Corps, four million forty-seven thousand two hundred and fifty-nine dollars and sixty-three cents.

PROVISIONS, MARINE CORPS: For noncommissioned officers, musicians, and privates serving ashore, for subsistence of enlisted men when traveling on duty, or cash in lieu thereof, for commutation of rations to enlisted men regularly detailed as clerks and messengers, for payment of board and lodging of recruiting parties, transportation of provisions, and the employment of necessary labor connected therewith, and for ice for preservation of rations, seven hundred and twenty-three thousand five hundred and forty-three dollars; and no law shall be construed to entitle marines on shore duty to any rations, or commutation thereof, other than such as now are or may hereafter be allowed to enlisted men in the Army: *Provided, however,* That when it is impracticable or the expense is found greater to supply marines serving on shore duty in the island possessions and on foreign stations with the army ration, such marines may be allowed the navy ration or commutation therefor.

CLOTHING, MARINE CORPS: For noncommissioned officers, musicians, and privates authorized by law, seven hundred and twenty-five thousand nine hundred and twenty dollars.

FUEL, MARINE CORPS: For heating barracks and quarters, for ranges and stoves for cooking, fuel for enlisted men, for sales to officers, maintaining electric lights, one hundred and twelve thousand dollars.

MILITARY STORES, MARINE CORPS: Pay of chief armorer, at four dollars per day; one mechanic, at three dollars per day; two mechanics, at two dollars and fifty cents each per day; for purchase of military equipments, such as rifles, revolvers, cartridge boxes, bayonet scabbards, haversacks, blanket bags, knapsacks, canteens, musket slings, swords, drums, trumpets, flags, waist belts, waist plates, cartridge belts, sashes for officer of the day, spare parts for repairing muskets, purchase and repair of tents and field ovens, purchase and repair of instruments for band, purchase of music and musical accessories, purchase and marking of prizes for excellence in gunnery and rifle practice, good-conduct badges; and medals awarded to officers and enlisted men by the Government for conspicuous, gallant, and special service; for incidental expenses of the School of Application; for the construction, equipment, and maintenance of school, library, and amusement rooms and gymnasiums for enlisted men, and the purchase and repair of all articles of field sports for enlisted men; purchase and repair of signal equipment and stores; for the establishment and maintenance of targets and ranges, and renting ranges, and for entrance fees in competitions; and for procuring, preserving, and handling ammunition, and other necessary military supplies, two hundred and seventy thousand dollars.

TRANSPORTATION AND RECRUITING, MARINE CORPS: For transportation of troops, including ferriage and transfers en route, or cash in lieu thereof, and the expense of the recruiting service, two hundred and sixty-one thousand dollars.

FOR REPAIRS OF BARRACKS, MARINE CORPS: Repairs and improvements to barracks and quarters at Portsmouth, New Hampshire; Bos-

ton, Massachusetts; Narragansett Station, Rhode Island; New York, New York; Philadelphia, Pennsylvania; Annapolis, Maryland; headquarters and navy-yard, District of Columbia; Norfolk, Virginia; Port Royal and Charleston, South Carolina; Pensacola, Florida; Dry Tortugas, Florida; New Orleans, Louisiana; Mare Island and San Francisco, California; Bremerton, Washington; Sitka, Alaska, and Isthmus of Panama; for the renting, leasing, improvement, and erection of buildings in Porto Rico, the Territory of Hawaii, the Philippine Islands, at Guam, the District of Columbia, and at such other places as the public exigencies require; and for per diem to enlisted men employed under the direction of the Quartermaster's Department on the repair of barracks, quarters, and the other public buildings, ninety-six thousand eight hundred and thirty-six dollars.

FORAGE, MARINE CORPS: For forage in kind for horses of the Quartermaster's Department, and the authorized number of officers' horses, and for stabling of public horses, nineteen thousand two hundred dollars.

COMMUTATION OF QUARTERS, MARINE CORPS: For commutation of quarters for officers serving with troops where there are no public quarters belonging to the Government, and where there are not sufficient quarters possessed by the United States to accommodate them; for commutation of quarters for enlisted men employed as clerks and messengers in the offices of the commandant, adjutant and inspector, paymaster and quartermaster, and the offices of the assistant adjutant and inspectors, the assistant paymasters, and the assistant quartermasters, at twenty-one dollars each per month, and for enlisted men employed as messengers in said offices, at ten dollars each per month, sixty-eight thousand dollars.

CONTINGENT, MARINE CORPS: For freight, tolls, cartage, advertising, washing of bed sacks, mattress covers, pillowcases, towels, and sheets, funeral expenses of officers and marines, including the transportation of bodies and their arms and wearing apparel from the place of demise to the homes of the deceased in the United States, stationery and other paper, printing and binding, telegraphing, rent of telephones, purchase and repair of typewriters, apprehension of stragglers and deserters, per diem of enlisted men employed on constant labor for a period of not less than ten days, employment of civilian labor, repair of gas and water fixtures, office and barracks furniture, camp and garrison equipage and implements, mess utensils for enlisted men, such as bowls, plates, spoons, knives and forks, tin cups, pans, pots, and so forth; packing boxes, wrapping paper, oilcloth, crash, rope, twine, quarantine fees, camphor and carbolized paper, carpenters' tools, tools for police purposes, iron safes, purchase and repair of public wagons, motor wagons, carts, and drays, purchase and repair of public harness, purchase of public horses, services of veterinary surgeons, and medicines for public horses; purchase and repair of hose, purchase and repair of fire extinguishers, purchase of fire hand grenades; purchase and repair of carts, wheelbarrows, and lawn mowers; purchase and repair of cooking stoves, ranges, stoves and furnaces where there are no grates; purchase of ice, towels, soap, combs, and brushes for offices; postage stamps for foreign postage; purchase of books, newspapers, and periodicals; improving parade grounds; repair of pumps and wharves; laying drain, water, and gas pipes; water, introducing gas, and for gas, gas oil, and introduction and maintenance of electric

lights; straw for bedding, mattresses, mattress covers, pillows, sheets; wire bunk bottoms for enlisted men at various posts; furniture for Government quarters and repair of same, and for all emergencies and extraordinary expenses arising at home and abroad, but impossible to anticipate or classify, three hundred and seventy thousand dollars.

Total under quartermaster, Marine Corps, two million six hundred and forty-six thousand four hundred and ninety-nine dollars.

Total Marine Corps, exclusive of public works, six million six hundred and ninety-three thousand seven hundred and fifty-eight dollars and sixty-three cents.

INCREASE OF THE NAVY.

That, for the purpose of further increasing the naval establishment of the United States, the President is hereby authorized to have constructed, two first-class battle ships to cost, exclusive of armor and armament, not exceeding six million dollars each, similar in all essential characteristics to the battle ship authorized by the Act making appropriations for the naval service for the fiscal year ending June thirtieth, nineteen hundred and eight. At least one of such battle ships shall be built and constructed under the direction of the Secretary of the Navy at one of the navy-yards; the other of said battle ships may also be constructed at one of the navy-yards in the discretion of the Secretary of the Navy, or by contract as hereinafter provided.

Ten torpedo-boat destroyers, to have the highest practicable speed, and to cost, exclusive of armament, not to exceed eight hundred thousand dollars each, to be built by contract, not more than three by any one contractor.

Two fleet colliers, of fourteen knots trial speed, when carrying not less than twelve thousand five hundred tons of cargo and bunker coal. One of said colliers to be built in such Government yard on the Pacific coast as the Secretary of the Navy shall direct. Cost not to exceed one million eight hundred thousand dollars each, and toward the construction of both, one million five hundred thousand dollars is hereby appropriated.

The Secretary of the Navy, in his discretion, is hereby authorized to purchase three new steam colliers of American registry, having a cargo carrying capacity of approximately seven thousand two hundred tons dead weight each, at a cost not exceeding five hundred and twenty-five thousand dollars each; and the sum of one million five hundred and seventy-five thousand dollars is hereby appropriated, out of any money in the Treasury not otherwise appropriated, for the purchase of the colliers above authorized.

And the contract for the construction of said vessels shall be awarded by the Secretary of the Navy to the lowest best responsible bidder, having in view the best results and most expeditious delivery; and in the construction of all of said vessels the provisions of the Act of August third, eighteen hundred and eighty-six, entitled "An Act to increase the naval establishment," as to materials for said vessels, their engines, boilers, and machinery, the contracts under which they are built, the notice of any proposals for the same; the plans, drawings, specifications therefor, and the method of executing said contracts shall be observed and followed, and, subject to the provisions of this Act, all said vessels shall be built in compliance with the terms

of said Act, and in all their parts shall be of domestic manufacture; and the steel material shall be of domestic manufacture, and of the quality and characteristics best adapted to the various purposes for which it may be used, in accordance with specifications approved by the Secretary of the Navy.

For eight submarine torpedo boats, in an amount not exceeding in the aggregate three million five hundred thousand dollars, and the sum of three million dollars is hereby appropriated toward said purpose and for the completion of submarine boats heretofore authorized.

CONSTRUCTION AND MACHINERY: On account of hulls and outfits of vessels and steam machinery of vessels heretofore authorized, nine million eight hundred and thirty-two thousand nine hundred and sixty-two dollars.

ARMOR AND ARMAMENT: Toward the armor and armament of domestic manufacture for vessels authorized, seven million dollars.

Toward the construction and machinery and armor and armament of the vessels herein authorized, seven million dollars: *Provided*, That no part of this appropriation shall be expended for armor for vessels except upon contracts for such armor when awarded by the Secretary of the Navy to the lowest responsible bidders, having in view the best results and most expeditious delivery.

INCREASE OF THE NAVY, EQUIPMENT: Toward the completion of the equipment outfit of the new vessels authorized, four hundred thousand dollars.

Total increase of the Navy, thirty million three hundred and seven thousand nine hundred and sixty-two dollars.

That no part of any sum appropriated by this Act shall be used for any expense of the Navy Department at Washington unless specific authority is given by law for such expenditure.

So much of the Act entitled "An Act making appropriations for the naval service for the fiscal year ending June thirtieth, eighteen hundred and ninety-nine, and for other purposes," approved May fourth, eighteen hundred and ninety-eight, as provides that monitors owned by the United States shall be named for the States, and shall not be named for any city, place, or person until the names of the States shall have been exhausted, is hereby repealed, and monitors now owned by the United States or hereafter built may be named as the President may direct.

Approved, May 13, 1908.

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TO

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By P. PULSIFER.

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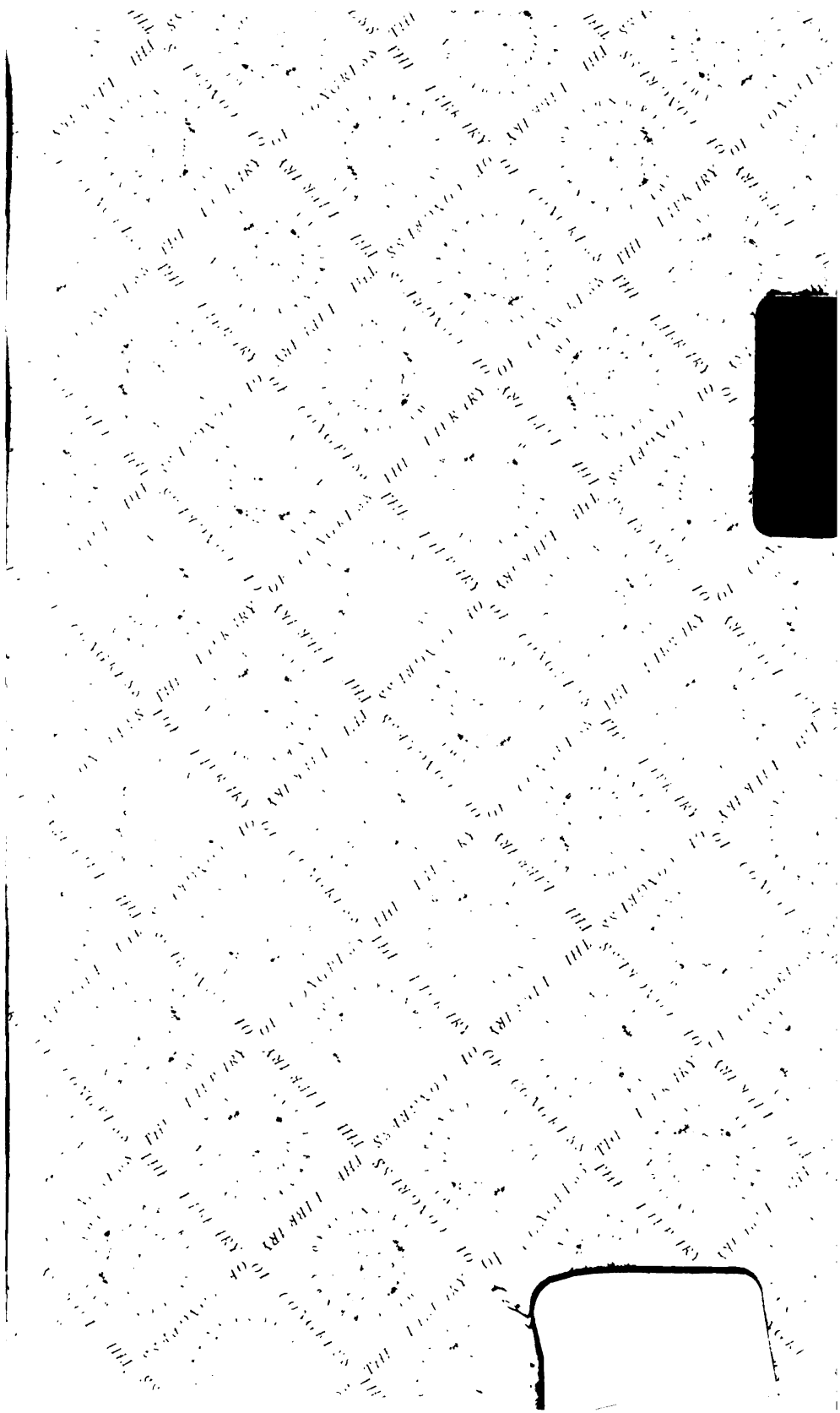
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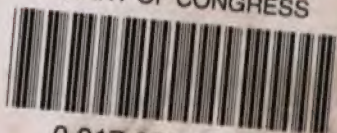
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